

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
ALEXANDRIA DIVISION**

DIVX, LLC

Plaintiff,

v.

AMAZON.COM, INC.,

Defendant.

Case No. 1:22-cv-1201

JURY TRIAL DEMANDED

COMPLAINT

Plaintiff DivX, LLC (“DivX”) alleges in its Complaint for patent infringement against Defendant Amazon.com, Inc. (“Amazon”) as follows:

NATURE OF THE ACTION

1. This is an action for infringement of U.S. Patent Nos. 8,832,297 (“the 297 Patent”); 7,295,673 (“the 673 Patent”); 10,225,588 (“the 588 Patent”); 11,102,553 (“the 553 Patent”); and 11,050,808 (“the 808 Patent”) (collectively, “the Asserted Patents”).

2. Plaintiff DivX, LLC (“Plaintiff” or “DivX”) is a U.S. company founded in 2000.

3. Since its inception, DivX has set the bar for high-quality digital video. DivX is one of the first companies to enable successful delivery of high-quality digital video over the internet. For more than 20 years, DivX has been developing innovative technologies to deliver better digital entertainment experiences for consumers—making internet video high-quality, secure, easy, and enjoyable for consumers to watch on any device.

4. Continuing to this day, DivX’s patented technology helps people around the world enjoy digital media on their own terms. Today, consumers take for granted that high-quality video from the internet is readily available on any device at the touch of a button. But by the time DivX’s

engineers accomplished this feat in the mid to late aughts, they had to overcome significant technical obstacles to do so. Through those efforts, DivX engineers invented foundational technologies that made high-quality internet video possible long before smart televisions existed.

5. For example, DivX's fundamental advances in video compression and streaming technology have made it possible to transmit large video files efficiently over the internet. DivX also created technology that allows those video files to be streamed to and played on a wide variety of consumer electronics devices. DivX further developed encryption technology (*e.g.*, Digital Rights Management technology) for video files, to protect valuable video content so that content producers would be comfortable making their original works available on the internet. DivX's fundamental advances include innovations in multiphase adaptive bitrate streaming, playback of encrypted bitstreams, and enabling seeking functionality during streaming playback. DivX's innovation paved the way and provided a roadmap for today's proliferation of internet video streaming on consumer devices.

6. Digital Rights Management ("DRM"), is the foundation of many DivX innovations. A robust DRM system allows owners of video content (like studio movies) to control access to the video content and provide increased protection against piracy. DRM is therefore fundamental to distribution of video over the Internet because DRM enables secure downloading and playback of videos.

7. In 2001, when DivX took the first steps toward creating an Internet video platform, content owners such as Hollywood studios would not release their premium video content on an Internet platform because they feared that piracy and losing control of their content would severely diminish the value of their rights.

8. From 2000 to 2005, DivX met with content owners such as Disney, Warner Bros., Sony, and Paramount Pictures about technical solutions to overcome their concerns and to implement the strict security requirements that the owners demanded. During the same period, DivX also met with major consumer electronics manufacturers about overcoming challenges to implementing DRM features in their devices. DivX recognized at the time that existing technologies would not meet the content protection concerns of studios, and it had to innovate to serve the market need.

9. DivX engineers worked to build a DRM system that would solve these long-standing technical problems, and as a result of DivX's research and development efforts, DivX DRM became one of the first DRM systems accepted by major Hollywood Studios.

10. In 2001, DivX completed a new implementation of the MPEG_4 video standard that aimed to satisfy consumer demand for accessible, high-quality digital video content—DivX Codec 4.0. Over the next decade, DivX developed and released numerous new and improved versions of the DivX Codec. DivX bundled the DivX Codec with other features for video encoding, decoding, and playback and packaged it as the “DivX Software.”

11. In addition to providing the DivX Codec, the DivX Software functioned like a master translator for video files, allowing variations in codecs, containers, and playback across different file types in different devices. It allowed consumers to compress, decode, and play back digital video using a single program that could allow users to access and use the variety of technologies available on the market, all in one place.

12. DivX continually evolved and improved its DivX Codec and DivX Software and consumer access to and use of digital video over the Internet became more widespread as computing power and network bandwidth increased. These developments led to widespread

adoption of the DivX Software, a large base of DivX users, and the creation of billions of DivX video files.

13. In 2001, DivX launched Open Video System (“OVS”)—an Internet-based video-on-demand system that built upon the quality and performance of DivX Software. OVS launched at a time when broadband Internet access was not yet ubiquitous and in a business environment where Hollywood studios were not yet ready to embrace digital distribution. After the launch of OVS, DivX engineers continued to invest in technical improvements and innovations for the platform, and their innovations expanded the platform to enable playback on a wide variety of playback devices.

14. DivX’s investments in OVS produced many key innovations for delivering video over the Internet including:

- (a) A flexible, key-based DRM system that tied purchased video content to a viewer rather than a device, preventing unauthorized access when the device was sold or obtained by others while improving the viewer experience.
- (b) A core codec that offered industry-best compression and performance, enabling full-screen, DVD-like quality that was vastly superior to the pixelated, postage-stamp size viewing experience associated with Internet video at the time.
- (c) A “progressive download” feature that allowed the viewer to begin watching a purchased or rented video after only a few minutes while the file continued to download in the background.

15. DivX OVS was a successful video streaming platform. Throughout the mid-2000s, hundreds of millions of devices spanning virtually every major consumer electronics manufacturer

were released supporting DivX OVS playback. Blockbuster, Netflix, Amazon, and others discussed with DivX using DivX technology to power their streaming platforms.

16. In 2006, DivX launched “Stage6”—one of the first HTTP-based websites for sharing and streaming high-resolution video. Streaming video from an HTTP-based website allows a web server to continuously send data to a viewer over a single HTTP connection that remains open. DivX Stage6 implemented DivX’s video compression, codec, and playback technology in an HTTP-based environment that allowed users to upload, share, and view larger video files than other competing platforms at that time, like YouTube.

17. DivX Stage6 was one of the earliest websites that supported sharing and streaming of high-resolution video. Even in 2007, when computing resources and network bandwidth were far more limited than today, DivX Stage6 supported streaming of 720p and 1080p high-definition video. The quality of the high-resolution video playback on Stage6 surprised reviewers, with one commenting “DivX has clearly got something right with web playback of higher-resolution video!” *See* HEXUS, “Review: DivX Stage6 (beta) – the high def rival to YouTube” (May 1, 2007), *available at* <https://hexus.net/tech/reviews/software/8558-divx-stage6-beta-high-def-rival-youtube/>. DivX Stage6 enjoyed rapid user traffic growth, and by January 2008, it had over 10,000,000 monthly views.

18. In 2011, DivX released the DivX Plus Streaming SDK, an end-to-end Internet video streaming software that rivaled Blu-ray DVDs in quality and feature-set (such as user commands for seeking in the video, fast-forward, and rewind). The DivX innovations incorporated in DivX Plus Streaming include several that provide the foundation for the widespread technological success of video streaming today.

19. DivX Plus Streaming was one of the earliest secure streaming software packages that supported Dynamic Adaptive Streaming over HTTP (“DASH”). DASH standardizes certain aspects of adaptive bitrate streaming of video over the Internet and has been widely adopted as a protocol used by many of today’s video streaming services. Fast start and smooth switching among video streams of different resolutions, depending on bandwidth, both improve the viewer experience during DASH. The innovations incorporated in DivX Plus Streaming improve both aspects of the streaming user experience.

20. DivX engineers’ efforts to create DivX Plus Streaming produced many innovations fundamental to today’s video streaming services, including adaptive bitrate streaming that delivered video streams configured for each specific screen size on which the user wanted to watch the video. Configuring video streams based on the characteristics of individual playback devices ensures the optimal balance of video quality and playback performance.

21. DivX continues to make investments in research and development for Internet video led to technical innovations. And DivX continues to patent its inventions. Today, DivX has a portfolio of more than 500 issued and pending patents and patent applications—with more than 400 issued patents alone. Most recently, DivX has filed patent applications for its new Grove App which is available for download in the Apple App Store in the U.S. and Canada with an Android version coming soon. *See*, for example, www.divx.com/grove/.

22. Presently, DivX has two distinct areas of business: (i) distributing consumer software (*e.g.*, the DivX Software) implementing its technologies, and (ii) licensing its software and/or patents to consumer electronics manufacturers, video streaming platforms, and supply chain manufacturers. Consumers have downloaded DivX software more than one billion times and created billions of files using DivX’s proprietary “.divx” file format. Consumer electronics

companies as well as video streaming companies, including Samsung, Disney, and Element TV Company, have licensed DivX's technologies, and are able to integrate them into millions of devices worldwide. To date, DivX has licensed at least 50% of the global Smart Television market and at least 70% of the U.S. Smart Television market.

THE PARTIES

23. DivX is a Delaware limited liability company. Its principal place of business is 4350 La Jolla Village Drive, Suite 950, San Diego, California, 92122. DivX owns patents covering foundational Internet video streaming technologies, including those asserted in this Action.

24. DivX holds all substantial rights and interest in the Asserted Patents, including the exclusive right to sue Amazon for infringement and recover damages.

25. Amazon is a Delaware corporation, with its principal place of business and original headquarters at 410 Terry Avenue North, Seattle, WA 98109. Amazon maintains a regular and established place of business in this District through multiple permanent physical facilities, including in particular Amazon's second headquarters that is located in this District. On information and belief, Amazon's second headquarters is located in the National Landing neighborhood of Arlington, Virginia, which includes at least the leased properties at 241 18th St. S., 1770 Crystal Dr., 2100 Crystal Dr., 2345 Crystal Dr., and 1800 S. Bell St., Arlington, Virginia and included at least two additional sites in development as of February 10, 2022. *See* Presentation by Joe Chapman, Director, Amazon Global Real Estate & Facilities, *PenPlace, Amazon Arlington HQ, Site Plan Review Committee: SPRC #4, February 10, 2022* at 3, available at https://www.arlingtonva.us/files/sharedassets/public/projects/documents/site-plan-projects/penplace/2022_02-07-sprc-4-deck.pdf.

26. Amazon has committed and continues to commit acts of patent infringement of the Asserted Patents including by making, using, selling, offering for sale, and importing infringing apparatuses and systems and performing infringing methods.

JURISDICTION AND VENUE

27. This action for patent infringement arises under the patent laws of the United States, Title 35 of the United States Code.

28. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

29. This Court has general and specific personal jurisdiction over Defendant Amazon. Amazon has substantial contacts with the forum as a consequence of actively working on and establishing its second headquarters in Virginia and in this District, and Amazon conducts substantial business in Virginia. Amazon states in its most recent 10-K filing to the SEC for fiscal year ended December 31, 2021, dated February 4, 2022, that “[w]e own and lease our corporate headquarters in Washington’s Puget Sound region and Arlington, Virginia.” Amazon sells, makes, uses, and offers for sale its products and services, including products and services that infringe the Plaintiff’s Asserted Patents, within the state of Virginia, including to customers in Virginia. A Court in this District has observed in April 2020: “It must be said that Amazon is nothing if not ubiquitous in the United States. Furthermore, after considering 238 cities, Amazon chose Arlington in the Eastern District of Virginia as the location for its HQ2, and will invest \$2.5 billion and 25,000 jobs in the undertaking. As such, Amazon cannot in good faith represent to the Court that E.D. Va. is an undesirable or inconvenient location to operate and do business. Litigating should not be an additional significant strain.” *Maglula, Ltd. v. Amazon.com, Inc.*, No. 1:19-cv-01570, ECF No. 52 at 32-33 (E.D. Va. Apr. 9, 2020). In addition, in early 2022, Amazon admitted in a district court filing that engineers who work on the design and development of video streaming on

Prime Video are located in Arlington, Virginia. *See Wag Acquisition, LLC v. Amazon.com, Inc.*, No. 6:21-cv-000815, ECF No. 30-82 at 1 (W.D. Tex. Jan. 6, 2022).

30. Amazon has committed and continues to commit acts of patent infringement, including making, using, selling, offering for sale and importing infringing apparatuses and systems including digital tablets, dedicated streaming media and video processing devices and set-top boxes, and components thereof, within this District.

31. Venue is proper for Amazon in this District under 28 U.S.C. §§ 1391(b) and (c), and 1400(b) because, as described above, a substantial part of the events giving rise to DivX's claims occurred in this district, and because Amazon, with its second headquarters in Arlington, Virginia, resides within this District. Amazon has pled in legal filings that venue in this District is proper. In a 2020 action filed by Amazon in this District, Amazon asserted that venue was proper under 28 U.S.C. § 1391(b) because, among other things "it is a district in which Plaintiff [Amazon] maintains headquarters and/or substantial business operations". *Amazon.com, Inc. v. WDC Holdings LLC*, No. 1:20-cv-484, ECF No. 1, ¶ 26 (E.D. Va. Apr. 27, 2020).

THE ASSERTED PATENTS

32. On September 9, 2014, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 8,832,297 ("the 297 Patent"), entitled "Systems and Methods for Performing Multiphase Adaptive Bitrate Streaming," to inventors Kourosh Soroushian, Auke van der Schaar, Jason Braness, and William David Amidei. DivX owns by assignment the entire right, title, and interest in the 297 Patent, including the right to sue and recover damages for past and present infringement thereof. A copy of the 297 Patent is attached to the Complaint as Exhibit 1.

33. The claimed inventions of the 297 Patent address significant technical problems in streaming digital video over a network to playback devices. As the 297 Patent explains, "[t]ypically, the playback device stores a sufficient quantity of media in a buffer at any given time

during playback to prevent disruption of playback” if the buffered content runs out prior to receipt of the next portion of the media to be streamed. Exhibit 1 (297 Patent) at 1:25-29. But buffering, alone, was not sufficient to ensure a quality digital streaming experience. One prior art technique to improve streaming media at the time of the inventions was “[a]daptive bit rate streaming,” in which the “present streaming conditions” – measurements of conditions which affect streaming quality such “the user’s network bandwidth and CPU capacity,” *id.* at 1:29-33 are measured and the quality of the streamed media is adjusted accordingly. *Id.* In known adaptive bit rate streaming systems, “[t]ypically, the source media is encoded at multiple bit rates and the playback device or client switches between streaming the different encodings,” *id.* at 1:29-36, depending on the detected “streaming conditions.” Adaptive bitrate streaming achieved an improved quality streaming experience by streaming “the highest bitrate stream available given the streaming conditions experienced by the playback device without stalls in the playback of media due to underflow” that occurs where the playback device “receives streaming media at a lower data rate than the minimum data rate for playing back the stream at the display rate of the playback device.” *Id.* at 1:37-43.

34. But these known methods have deficiencies which are addressed by the 297 inventions. Because known adaptive bitrate streaming techniques used the same “stream switching conditions” (the threshold streaming condition measurement that determines whether the playback device will request a higher or lower bitrate stream, thereby “switching”) “throughout the duration of the streaming of a particular piece of content,” *see id.* at 7:12-19, this “one size fits all” approach could not optimize stream selection during different operational streaming phases, for instance phases marked by rapidly changing streaming conditions, *id.* at 10:64-11:26, or phases where streaming conditions remain stable for an extended period. *Id.* at 10:24-62. For example,

conservative stream switching heuristics, which are less responsive to changing streaming conditions and only switch to a higher or lower bitrate stream in the event of dramatic changes in streaming conditions, or following a sustained period of a detected streaming condition, may be well-suited to streaming phases characterized by stable streaming conditions, such as available network bandwidth, or buffer state, *id.* at 10:24-62, but poorly suited for streaming phases characterized by rapidly changing streaming conditions – for example, where available network bandwidth deteriorates rapidly. During rapidly changing streaming conditions, such conservative stream switching conditions may not permit the playback device to switch to a lower bitrate stream quickly enough when network conditions deteriorate, risking a buffer underflow condition and interruption in playback. Conversely, aggressive stream switching heuristics, such as those which switch to a higher or lower bitrate stream following small changes in streaming conditions, or following a short period of a detected streaming conditions (such as falling bandwidth), may be well-suited to streaming phases characterized by rapidly changing streaming conditions, such as available network bandwidth, or buffer state, as they permit the playback device to react quickly to changing conditions, for example to move to a lower bitrate to prevent buffer underflow. *Id.* at 10:64-11:26. But they may be poorly suited for streaming phases characterized by relatively stable streaming conditions – for example, by unnecessarily switching to an observably lower quality (*i.e.*, lower bitrate) stream due to a momentary drop in network bandwidth, even though the connection is largely stable over time and the device buffer is full. As a result, existing adaptive bitrate streaming strategies could not provide optimal streaming video quality in light of detected streaming conditions across the duration of streaming video playback.

35. The 297 Patent claims recite specific technical solutions to solve these technical problems with adapting to changes in streaming conditions and applying the appropriate stream

switching conditions for the current needs of the system. The 297 Patent claims are directed to a new “[m]ultiphase adaptive bitrate streaming” that “can transition between different phases in which different stream switching conditions are utilized.” *Id.* at 2:28-31. As the 297 Patent describes:

In a multiphase adaptive bitrate streaming system, the playback device can progress through a series of operational phases in which the playback device responds differently in each phase to changes in the streaming conditions. In a number of embodiments, stability in streaming conditions or improving streaming conditions can result in a transition to a phase in which the playback device assumes stable operating conditions, buffers more content, and is less responsive to fluctuations in streaming conditions. In many embodiments, a deterioration in streaming conditions that results in a stream switch to a set of streams requiring less bandwidth results in the playback device transitioning to a phase in which the playback device assumes unstable operating conditions, buffers less content, and responds rapidly to variations in streaming conditions.

Id. at 8:17-32.

36. The 297 Patent claims are directed to improved devices (claim 1 and dependents) and methods (claim 18 and dependents) for providing this new multiphase adaptive bitrate streaming. More specifically, the 297 Patent provides a playback device that requests media content and switches to a higher or lower bitrate stream based on detected switching conditions. *Id.* at 6:59-67. For example, in one phase, this allows the playback device to react quickly to changes in the streaming conditions and (for example) buffer less content. *Id.* at 6:67-7:3. In another phase, the stream-switching conditions may cause the playback device to buffer more content and react more slowly to “ride out temporary bandwidth fluctuations.” *Id.* at 7:3-7. The 297 Patent claims describe selecting initial streams and stream-switching conditions, and measuring the streaming conditions as content is received. *Id.* at 9:44-46, 9:64-10:1. When certain streaming conditions are met, the playback device switches streams. *Id.* at 10:1-6. The playback device then determines whether the conditions dictate transitioning to another operational phase, again based on streaming conditions. *Id.* at 10:8-11. When the phase transition conditions are met,

“the playback device transitions between operational phases, which involves adopting (62) a different set of stream switching conditions.” *Id.* at 10:8-12. Multiphase adaptive bitrate streaming that allows for the transition between different phases in which different stream switching conditions are utilized, was not well-known, routine, or conventional at the time of the 297 inventions.

37. On November 13, 2007, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 7,295,673 (“the 673 Patent”), entitled “Method and System for Securing Compressed Digital Video,” to inventors Eric W. Grab and Adam H. Li. DivX owns by assignment the entire right, title, and interest in the 673 Patent, including the right to sue and recover damages for past and present infringement thereof. A copy of the 673 Patent is attached to the Complaint as Exhibit 2.

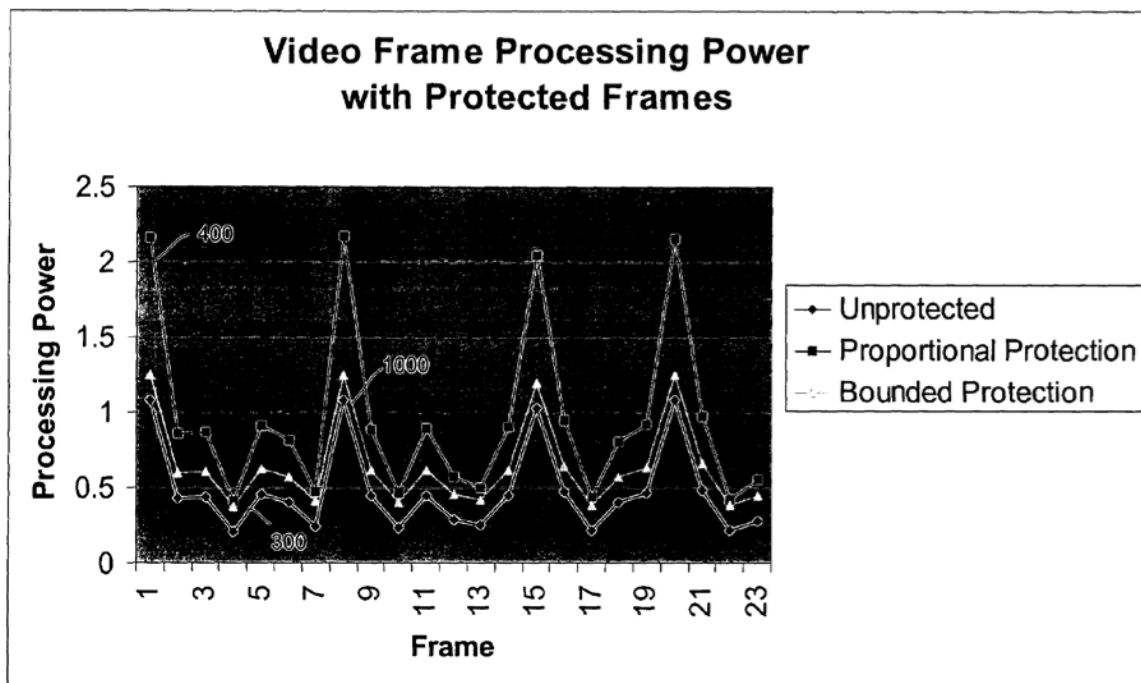
38. The claimed inventions of the 673 Patent address significant technical problems in streaming digital video to playback devices. As existed in the prior art and continues to be the case today, a stream of compressed digital video content has a specific structure arranged so that it can be interpreted properly by a playback device and converted to pixels on the display screen. *See, e.g.,* Exhibit 2 (673 Patent) at 1:24-49 (describing display of digital video as pixels), 3:3-11 (describing standards used for video compression and decompression), 5:55-6:24 (describing, with respect to FIG. 5, “types of frames within a video stream . . . formatted consistently with the MPEG-4 standard”), 7:15-28 (describing specific organization of MPEG-4 stream), 9:6-10:17 (describing, with respect to FIG. 9, “the structure of an unencrypted video stream and of a video stream encrypted in accordance with the present invention”).

39. Decoding a digital video stream on a playback device, such as a television, tablet or smartphone, is “very computationally intensive, with the degree of computational intensity

varying directly with the extent of compression.” *Id.* at 1:63-2:9. Therefore, “[a]nything that adds to computational intensity over and above the processing overhead associated with the applicable decoding process is undesirable, since this leads to increased system complexity and expense.” *Id.* In particular, “[a]ny processing of frames required in addition to decoding (*e.g.*, decryption) consumes yet further processing resources.” *Id.* at 3:12-19 (describing FIG. 3). Decryption adds to the computational overhead associated with decoding. “[T]he processing power necessary required [sic] to both decrypt and decode a sequence of frames” that have been encrypted is higher than “the relatively smaller amount of processing power required to decode unprotected (*i.e.*, unencrypted) frames.” *Id.* at 3:34-51 (describing FIG. 4). As such, at the time of the 673 inventions, “a need exist[ed] for an adequately secure technique for bounding the resources consumed during decryption, thereby reducing peak processing requirements.” *Id.* at 3:49-51. The 673 invention provides for these efficiencies while also providing the requisite content security. The 673 Patent, therefore, addresses a technical problem: allowing adequate content security while limiting the resources consumed during video decryption. *See, e.g., id.* at 3:39-51.

40. The 673 Patent claims recite specific technical solutions to solve these technical problems with compressed digital video content that provide sufficient security but requires less processing power to decrypt. The 673 Patent claims are directed to improvements to the functionality of computer systems that perform digital video encoding, encryption, decryption, and decoding, by providing a new structure of encrypted video data, and how a video decoder is configured to decrypt and decode that new structure. The new structure of encrypted video data of the 673 invention includes frame decryption information synchronized with encrypted frames in the video data. *See, e.g., id.* at 3:55-4:42; 5:25-32, 6:39-7:14 (describing FIG. 6, including new process for creating the new structure of encrypted video data), 7:15-8:42 (describing FIG. 7,

including new process for generating “frame decryption information” for the new structure of encrypted video data), 8:43-9:5 (describing FIG. 8, including new process for decrypting and decoding the new structure of encrypted video data), 9:6-10:17 (describing FIG. 9, including structure of the new video data format). In claim 29, the compressed encrypted frames are partially encrypted, such that the frame decryption information “identifies the specific portions of the frames to be decrypted and the applicable frame decryption key” *Id.* at 14:18-45 (claim 29). By only partially encrypting frames in the video stream, the new structure of encrypted video data reduces the computing resources required for decrypting and decoding the data, as depicted, for example, in FIG. 10.



41. The top line in the figure represents the processing power needed to decrypt and decode a fully encrypted stream, the bottom line represents the power needed to decode an unencrypted stream, and the middle line represents the power needed to decrypt and decode the new file structure of the invention—reducing the resources needed from a fully encrypted approach while providing more security than the unencrypted approach. As such, “[t]he bounded encryption

approach of the invention requires substantially less peak processing power (*see, e.g.*, frames 8, 15, and 20) during the decryption process than would otherwise be required using standard encryption techniques.” *Id.* at 10:18-34. By synchronizing frame decryption information with the encrypted frames in the video data, the new structure of encrypted video data improves the performance of the computer system executing decryption and decoding operations, making decryption less computationally intensive and reducing errors that could be caused by a lack of synchronization. Partial frame encryption, combined with frame decryption information synchronized with encrypted frames to permit decryption of those frames, with the resultant decrypted frames passed to an entropy decompression unit for decompression and display, was not well-known, routine, or conventional at the time of the 673 inventions.

42. On March 5, 2019, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 10,225,588 (“the 588 Patent”), entitled “Playback Devices And Methods For Playing Back Alternative Streams Of Content Protected Using A Common Set Of Cryptographic Keys,” to inventors Michael George Kiefer, Eric William Grab, and Jason Braness. DivX owns by assignment the entire right, title, and interest in the 588 Patent, including the right to sue and recover damages for past and present infringement thereof. A copy of the 588 Patent is attached to the Complaint as Exhibit 3.

43. The claimed inventions of the 588 Patent address a technical problem: providing content security while reducing the computational burdens of processing cryptographic information for alternative video streams during Adaptive Bitrate Streaming (“ABS”). “In many instances, content is divided into multiple streams,” and “some streams can be encoded as alternative streams that are suitable for different network connection bandwidths.” *See, e.g.*, Exhibit 3 (588 Patent) at 1:45-58. In ABS, “the source media is encoded at multiple bitrates and

the playback device or client switches between streaming the different encodings depending on available resources.” *See, e.g., id.* at 1:59-67. Prior to the 588 inventions, each stream used different cryptographic information for authorizing secure playback. *See, e.g., id.* at 8:37-61, 9:65-10:31. Storing and processing cryptographic information for each stream required more computing resources and increased the cost and complexity of the playback device, and it can also result in stalls and delays when switching among video streams with different bitrates. *See, e.g., id.* Accordingly, a need existed for a more efficient and high-performance DRM implementation for ABS that would reduce the computer memory consumed by cryptographic information and reduce the time and computing resources consumed by playback devices when switching among video streams having different bitrates.

44. The 588 Patent claims recite specific technical solutions to solve these technical problems with playback device implementations and methods that reduce the computer memory and other resources consumed by cryptographic information during ABS. The 588 claims are directed to improvements to the functionality of computer systems that perform digital video decryption and playback during ABS. More specifically, the 588 claims are directed to a new index file structure and a new structure of encrypted data for ABS, how a playback device is configured to request, decrypt, and play back video data using the new structures (claim 1 and dependents), and how to request, decrypt, and play back video data using the new structures (claim 12 and dependents).

45. The new index file structure and a new structure of encrypted data of the 588 inventions incorporates alternative video streams including partially encrypted video frames that are encrypted using a set of common keys, a top-level index identifying those streams, and a container index containing byte ranges for portions of a stream. With the 588 inventions, “each of

the alternative streams of protected content are encrypted using common cryptographic information.” *See, e.g., id.* at Abstract; *see also id.* at 2:66-3:30, 8:37-61, 9:65-10:31. Prior ABS video encryption formats and index files did not encrypt alternative streams using a set of common keys. The new index file structure and new structure of encrypted data of the 588 Patent, and the devices and methods used to process the new index file structure and encrypted data structure, therefore were not well-known, routine, and conventional at the time of the 588 inventions.

46. The new index file structure and new encrypted data structure of the 588 inventions, and the devices and methods used to process the new index file structure and encrypted data structure, provide technical benefits that improve the functionality and capabilities of computer systems performing these operations. Encrypting alternative video streams using a set of common keys, and identifying those encrypted streams using a top level index file, allows playback devices to switch between alternative video streams during ABS and to decrypt those streams without having to perform the computationally intensive processes of obtaining and processing additional cryptographic information, while maintaining the security of the video content. *Id.* at 8:55-61, 10:22-31. The new file structures of the 588 inventions, and new methods for processing those structures, therefore reduce the computing resources needed to provide ABS while providing content security. The 588 inventions, therefore, allows an ABS system to switch among video streams having different bitrates more efficiently, consuming fewer computing resources and avoiding interruptions in video playback, improving the performance of the computing system. *Id.* The 588 Patent’s new encryption architecture for digital video streams that uses partial-frame encryption and common encryption keys to encode alternate video streams, reducing playback stalls and improving performance during ABS while maintaining content security, was not well-known, routine, or conventional at the time of the 588 inventions.

47. On August 24, 2021, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 11,102,553 (“the 553 Patent”), entitled “Systems and Methods for Secure Playback of Encrypted Elementary Bitstreams,” to inventors Francis Yee-Dug Chan, Kourosh Soroushian, and Andrew Jeffrey Wood. DivX owns by assignment the entire right, title, and interest in the 553 Patent, including the right to sue and recover damages for past and present infringement thereof. A copy of the 553 Patent is attached to the Complaint as Exhibit 4.

48. The 553 Patent addresses a technical problem: in digital multimedia distribution systems, “the multimedia file is authorized and decrypted in a demultiplexer and then transmitted downstream unencrypted to the decoder via an inter-communication data channel. This however can present a security problem due to the high value of the unencrypted but still encoded bitstream that can be captured during transmission. This bitstream is considered high-value since the encoded data can be easily multiplexed [which refers to repackaging into a multimedia file,] back into a container for unprotected and unauthorized views and/or distribution with no loss in the quality of the data.” Exhibit 4 (553 Patent) at 6:59-7:2.

49. Content providers need to make sure that only authorized users can access and play back digital content. *See, e.g., id.* at 1:39-43. This is a particular problem when the content is communicated over connections that are not secure and can be intercepted, such as when content is communicated “from one process or component to another process or component over an unsecured connection”, such as between a “demultiplexer and a decoder over an unsecured connection.” *See, e.g., id.* at 5:25-31; *see also id.* at 1:61-63 (explaining that “when communication or the transporting of information becomes unsecured or untrustworthy, such gaps need to be accounted for and filled”). Accordingly, a need existed to improve the distribution of digital

content to enhance security of content that may be transported over an unsecured connection, while enabling efficient access to the content for the correct users. *Id.* at 1:59-61, 1:65-67.

50. The 553 Patent provides a solution to this problem with specific ways to transport “encrypted multimedia content over an unsecured connection” such as from one process or component to another process or component to improve security and enable efficient distribution and playback of multimedia content. *See, e.g., id.* at 1:36-37. The 553 Patent invention package decryption information with digital video in a “container file” and allows processing of that file such that decryption can occur on the video decoder. *Id.* at 6:3-36, FIG. 1, FIG. 2. The 553 Patent claims are therefore directed to improvements to the functionality of computer systems that perform digital video decryption, decoding, and playback. The 553 Patent claims are directed to a playback device with a new structure of container file containing encrypted digital video; how a playback device is configured to decrypt, decode, and play back the new file structure (claims 1, 11, and their dependents); and the method of decrypting, decoding, and playing back that new file structure (claim 19 and dependents). Prior video container file formats did not contain this specific structure of partially encrypted frames and cryptographic information necessary for decryption and decoding. This new file structure, and the playback devices and methods used to decrypt and play back video structured in this new way, therefore were not well-known, routine, or conventional at the time of the 553 Patent inventions.

51. The new structure of a container file containing encrypted digital video of the 553 Patent inventions and the playback devices and methods used to decrypt and play back video structured in this new way provide technical benefits that improve the functionality and capabilities of computer systems performing these operations. By providing partially encrypted video frames, coupled with specific cryptographic information describing the encrypted portion of each partially

encrypted frame, and requiring deciphering of frame keys using the cryptographic material, the new container file format improves the security of the video data and reduces the processing resources required to decrypt and play back the video. The 553 Patent inventions “do not secure the transmission but rather secure the data being transmitted via the unsecured connection.” *See, e.g., id.* at 5:33-51. The inventions accomplish this using enciphered decryption key information in the multimedia data, and not deciphering those keys to decrypt the multimedia until the data is at the decoder and no longer being transmitted. *See, e.g., id.; see also* 6:57-7:9. As a result, for example, “by allowing the decryption to occur on the decoder the bitstream is protected even if the connection is compromised and an unauthorized component or process intercepts the bitstream.” *See, e.g., id.* at 5:41-44.

52. On June 29, 2021, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 11,050,808 (“the 808 Patent”), entitled “Systems and Methods for Seeking Within Multimedia Content During Streaming Playback,” to inventor Roland Osborne. DivX owns by assignment the entire right, title, and interest in the 808 Patent, including the right to sue and recover damages for past and present infringement thereof. A copy of the 808 Patent is attached to the Complaint as Exhibit 5.

53. The 808 Patent addresses problems caused by inferior prior art systems: startup delay, streaming options limited to single track files, audio files, and/or files without subtitles, and lack of or limited trick play functionality. The 808 Patent’s new playback methods and systems address multiple technical problems. Existing digital video playback systems facilitated progressive playback for only short video clips because the systems downloaded video files *linearly*, from beginning to end. Exhibit 5 (808 Patent) at 1:48-49. Playback would begin only after the player had “buffered enough data to provide a likelihood that the media [would] play without

interruption.” *Id.* at 1:49-51. Because playback would begin only after the player had downloaded sufficient data, longer content would suffer from startup delay: “The buffering requirement can either be a fixed amount suitable for a large percentage of content, or a dynamic amount, where the player infers how much data is required to play the entire content without suffering buffer under-run.” *Id.* at 1:51-55. Thus, existing systems did not support random seeking, trick play (for example, pausing, rewinding, fast forwarding, skipping), or playing back longer content (i.e., feature-length movies), and was not suitable for use with Internet servers that “store files that can contain multiple titles, titles that include multiple audio tracks, and/or titles that include one or more subtitle tracks.” *Id.* at 1:55-59, 2:37-42; *see also id.* at 2:7-17 (“When a long clip is started, it is impossible to seek or fast-forward to a point in the file that has not already been downloaded.”). Multi-track media, in particular, was not suitable for the existing smooth trick play functionality as the playback device must download the data for the other tracks, even if only certain tracks have been chosen for playback. *See id.* at 10:49-11:15. Such systems were likely to suffer from buffer under-run when receiving trick play instructions, resulting in playback stalls and startup delays caused by access delays in data transmission and computing burdens placed on the network and device.

54. Some existing streaming systems were “server-driven,” as opposed to receiver-driven (*e.g.*, based on instructions from the player). In server-driven systems, “the server parse[d] the data file and determine[d] which data to send” for playback. *Id.* at 1:65-66. Server-driven systems required custom computing systems, which increased expense: “[s]tandard HTTP web servers . . . do not typically provide this functionality, and custom web servers providing this functionality often scale poorly when called upon to deliver content simultaneously to a large number of players.” *Id.* at 1:67-2:4. These systems required expensive, impractical, inefficient

custom server designs unable to simultaneously supply digital video content to a large number of playback devices. *Id.*

55. Accordingly, as demand for streaming digital video content increased, a need existed for a new, improved playback implementation able to facilitate (1) efficient, non-linear, partial-download playback with trick play functionality, (2) receiver-driven, partial-download playback compatible with HTTP, and (3) delivery of video streaming to a large number of devices.

56. The 808 Patent provides specific, technical solutions to the technical challenges presented by existing playback systems, specifically, for instance by enabling the playback device to support playback of multiple audio and subtitle tracks without downloading them all. *See, e.g., id.* at 2:23-39. The system selects video, audio, and/or subtitle tracks among other tracks in the file and requests specific portions of the selected tracks for download, buffering, and playback based on instructions at the playback device. The 808 Patent claims are directed to improvements to the functionality of computers that request, receive, download, buffer, and play back digital video, audio, and subtitle content stored in container files on a remote server. The 808 Patent claims are directed to improved devices (claim 1 and dependents) and methods (claim 17 and dependents).

57. One aspect of the 808 Patent inventions recites a technical solution related to the player's ability to deliver requests to the server for specific portions of a video file. For example, "[i]n several embodiments, the ability to provide full featured progressive playback is due in part to the tight coupling of the playback engine for the media sequence (i.e., the system that decodes and plays back the encoded media) with a transport protocol that provides random access to the remote file. Interfacing of the playback engine with the transport protocol via a file parser can reduce latency and enable the client and media server to operate in parallel improving download efficiency and interactivity." *Id.* at 2:43-51. Further, the multi-track media "files are formatted to

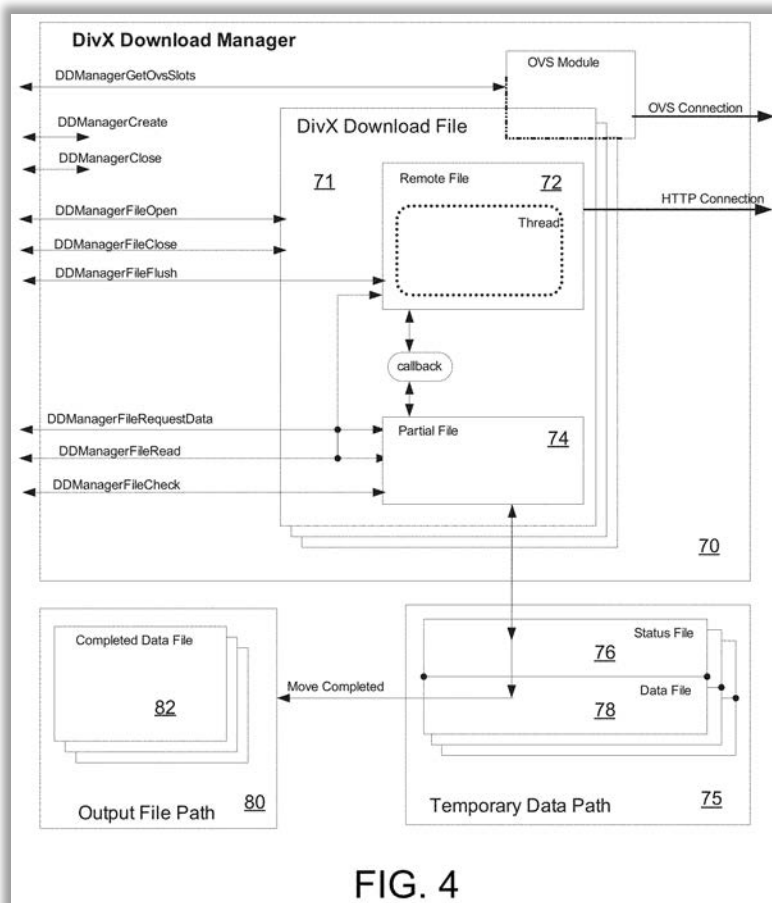
include an index to the data within the file and a transport protocol that allows for downloading specific byte ranges within a file.” *Id.* at 2:51-55; *see also id.* at 6:25-49 (“When the media file includes an index, a device configured with a client application in accordance with an embodiment of the invention can use the index to determine the location of various portions of the media. Therefore, the index can be used to provide a user with ‘trick play’ functions. . . . [T]he client application requests portions of the media file using a transport protocol that allows for downloading of specific byte ranges within the media file.”).

58. Another aspect of the technical solution provided by the inventions of the 808 Patent is the new ability for the client to “flush” or purge an existing “queue of pending byte range requests and establish a new queue of byte range requests,” for example in response to a new trick play command received at the play back device that corresponds a different byte range of streaming media, such as a different scene or portion of the media, than is currently being requested by the playback device. *Id.* at 9:7-11. As the 808 Patent explains, when “a user provides a ‘trick play’ instruction, previously requested byte ranges may no longer be required in order to continue playing media in the manner instructed by the user.” *Id.* at 9:4-7. The new playback devices of the 808 Patent “possess the ability to flush the queue of pending byte range requests and establish a new queue of byte range requests. An advantage of flushing a request queue is that there is no latency associated with waiting until previously requested byte ranges have been requested prior to downloading the now higher priority byte ranges.” *Id.* at 9:7-14.

59. The 808 Patent inventions provide an improved playback implementation that enables a client application at the player to commence playing video content and to request non-sequential portions of the video file without receiving the complete video file. *Id.* at 5:33-54. The inventions create a client computing application capable of implementing progressive playback

and supporting trick play functionality for files containing multiple titles and for titles with multiple media tracks. *Id.*; *Id.* at 2:26-42. These implementations were new and not well-known, routine, or conventional at the time of the 808 Patent inventions.

60. The 808 Patent provides technical—not merely conceptual—solutions to recognized, but unsolved progressive playback shortcomings. The 808 Patent inventions specify a client application with multiple “abstraction layers” to facilitate progressive playback with trick play functionality. *Id.* at 7:16-37. One exemplary embodiment of the player disclosed by the 808 Patent includes a download manager “that is responsible for coordinating the downloading of specific byte ranges of a file from a remote server”; a playback engine “that coordinates the playback of a media file in response to user interactions”; and a file parser that “interfaces between the playback engine and the download manager” and “maps high level data requests from the playback engine to specific byte ranges that can then be requested using the download manager.” *Id.*



808 Patent, FIG. 4.

THE ACCUSED PRODUCTS

61. The Accused Products include the following families: Amazon Prime Video, various generations and screen sizes of Amazon Fire, Fire HD, Fire HD Plus, Fire Kids, Fire Kids Pro, Fire HD Kids, and Fire HD Kids Pro tablets (collectively, “Amazon Fire tablets”); various generations of Amazon Fire TV Stick and Fire Cube devices (collectively, “Amazon Fire TV/Cube devices”); various generations and screen sizes of Amazon Echo Show devices (“Amazon Echo Show devices”); and various screen sizes of Amazon Fire TV 4-Series and Fire TV Omni Series sets (collectively, “Amazon Fire TV sets”). Infringement charts of the exemplary product Fire TV Stick (2020, 3rd Gen) are attached as Exhibits 6-10.

62. Upon information and belief, all Accused Products are configured and operate in substantially the same way with respect to the Asserted Patents asserted against those products.

63. Without discovery, DivX cannot exhaustively identify all Amazon devices that infringe the Asserted Patents. DivX reserves its right to supplement its allegations, to further amend this Complaint, and to add defendants and accused products in the future if necessary.

COUNT I: INFRINGEMENT OF U.S. PATENT NO. 8,832,297

64. DivX incorporates and realleges paragraphs 1 – 63 above as if fully set forth herein.

65. On information and belief, Amazon has infringed and continues to infringe, directly and/or indirectly, one or more claims of the 297 Patent, including but not limited to claims 1-2, 4, 18-19, and 21, pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by, among other things: making, using, offering for sale, selling, and/or importing into the United States without authority, the Amazon Accused Products.

66. A claim chart applying independent claim 1 of the 297 Patent to a current-generation Amazon Fire Stick operating with the Amazon Prime Video streaming service as an exemplary streaming application, as exemplary of the Amazon Accused Products (and components thereof), can be found at Exhibit 6. Amazon directly infringes the asserted claims by making, using (*e.g.*, when testing its Prime Video service with the Amazon Accused Products), selling, offering to sell, and/or importing the Amazon Accused Products, each of which comprises the claimed playback device. The current-generation Amazon Fire Stick is depicted here:



See, e.g., Fire TV Stick with Alexa Voice Remote (includes TV controls), (HD streaming device), Amazon, <https://www.amazon.com/fire-tv-stick-with-3rd-gen-alexa-voice-remote/dp/B08C1W5N87>.

67. The descriptions in Exhibit 6 are preliminary and based on publicly available information. Plaintiff expects to further develop the evidence of infringement by the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets, after obtaining discovery from Amazon in the course of this Action.

68. On information and belief, Amazon has induced and continues to induce infringement of claims of the 297 Patent pursuant to 35 U.S.C. § 271(b), including without limitation at least claims 1-2, 4, 18-19, and 21, by encouraging its customers and other third parties

to make/and or use the claimed systems, such as by using the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets. Such making and/or use of the claimed systems constitutes infringement, literally or under the doctrine of equivalents, of one or more claims of the 297 Patent by such third parties. Amazon's acts of encouragement include: providing and intending that third parties use the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets, in a manner that infringes, and providing instructions to do so; purposefully and voluntarily placing the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets, in the stream of commerce with the expectation that it will be used by customers in the United States including in the Eastern District of Virginia; providing components that enable/and or make use of the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets, through its own and third-party media platforms, including websites and television. Furthermore, Amazon has actual knowledge of how the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets, work, including how they are used by customers to infringe the 297 Patent. Amazon has undertaken these acts of encouragement with the specific intent that end-users use such Accused Products as intended by Amazon in a manner that infringes the asserted claims of the 297 Patent.

69. Amazon proceeded in this manner despite actual knowledge of the 297 Patent and that the specific actions it is actively inducing on the part of its customers and other third parties constitute infringement of the 297 Patent. Amazon has had actual knowledge of the 297 Patent as of at least September 21, 2018, when the 297 Patent was cited by the Patent Examiner as part of the prosecution history for what became U.S. Patent No. 10,277,924, assigned to Amazon Technologies, Inc., which is a wholly owned subsidiary of Amazon. Exhibit 11 (U.S. Patent No. 10,277,924 File History, 9/21/18 Non-Final Rejection of Claims and Notice of References Cited at PDF pp. 64-89, 68, 81); *see* Amazon's 10-K filing to the SEC for fiscal year ended December 31, 2021, dated February 4, 2022, which is Amazon.com's List of Significant Subsidiaries, stating the relationship between Amazon Technologies, Inc. and Amazon.com, Inc., *available at* <https://d18rn0p25nwr6d.cloudfront.net/CIK-0001018724/f965e5c3-fded-45d3-bbdb-f750f156dcc9.pdf> at page 189. The Patent Examiner rejected several claims of what became U.S. Patent No. 10,277,924 based on a patent publication, U.S. Patent Publication No. 2017/0366833, assigned to DivX, that also incorporated the 297 Patent by reference. Exhibit 11 (U.S. Patent No. 10,277,924 File History) at PDF pp. 69-70; *see also id.* (Notice of References Cited by the Examiner) at PDF p. 81. The September 21, 2018, Claim Rejections explicitly cited the 297 Patent at least six times. *Id.* (U.S. Patent No. 10,277,924 File History) at PDF pp. 69-71, 72- 73, 73-75, 75-77, 77-80, 82. The applicant then had to amend its claims in view of these claim rejections. Exhibit 11 (Amendment and Remarks) at PDF pp. 91-107.

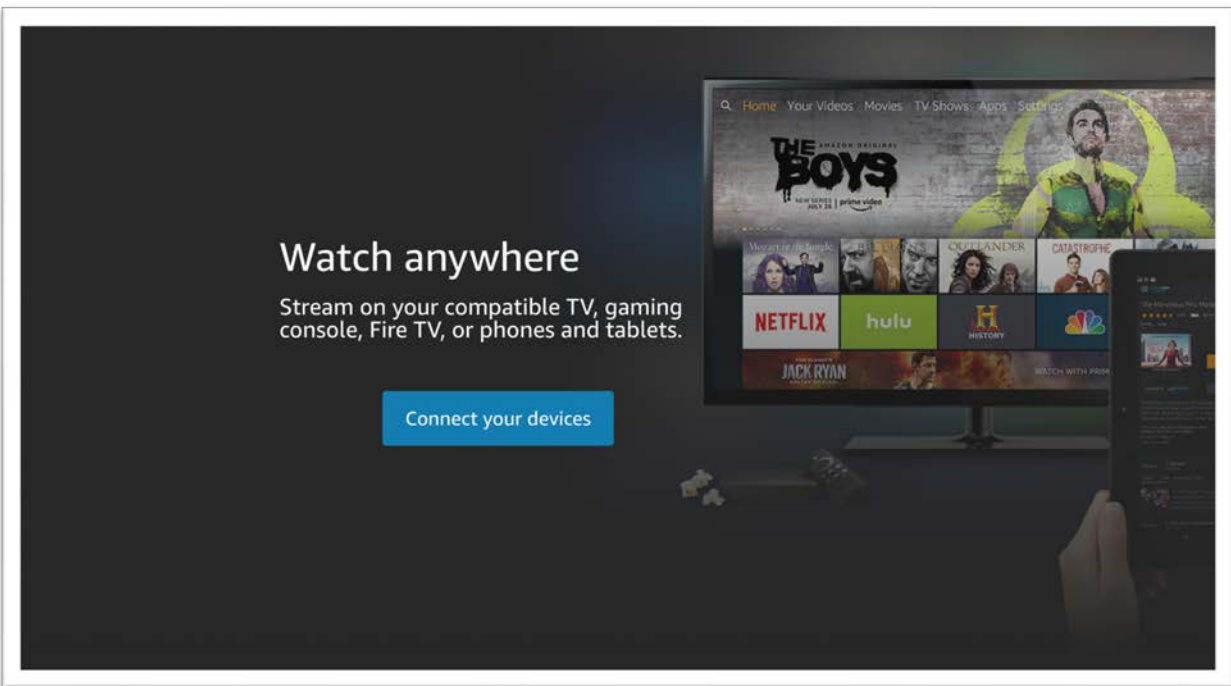
70. In ITC Investigation No. 337-TA-1222, *In the Matter of Certain Video Processing Devices, Components Thereof, and Digital Smart Televisions Containing the Same I*, where DivX also asserted the 297 Patent, Amazon was again placed on notice of the 297 Patent as of at least November 3, 2020, when Complainant DivX served a subpoena *duces tecum* and subpoena *ad*

testificandum on Amazon by overnight FedEx delivery. Exhibit 13 (Stipulation Extending Time for Non-Party Amazon.com, Inc. to Respond to Complainant DivX, LLC's Subpoena) at 1. Additionally, on February 11, 2022, Amazon confirmed its awareness of the 297 Patent and of DivX's infringement allegations implicating Amazon's technology. On that day, Amazon filed a motion to intervene in ITC Investigation No. 337-TA-1297, *In the Matter of Certain Video Processing Devices, Components Thereof, and Digital Smart Televisions Containing the Same II*, filed by DivX against Respondent TCL where DivX again asserted the 297 Patent. Amazon based its motion on the grounds that DivX's infringement allegations, including alleged infringement of the 297 Patent, against TCL "implicate Amazon's technology, including the Prime Video streaming service and application that may be installed on and used by the accused TCL smart TV products". Exhibit 12 at 1-2 (Amazon Motion to Intervene). Because Amazon is on notice of the 297 Patent and the accused infringement, it is intentionally inducing infringement or at least willfully blind regarding infringement it has induced and continues to induce. At the very least, Amazon was on notice of the 297 Patent and the accused infringement at least as of the date of the filing and/or service of this Complaint and/or the Complaint captioned *Certain Video Processing Devices and Components Thereof*, Inv. No 337-TA-___ (pending institution) filed with the United States International Trade Commission with detailed infringement contentions on October 24, 2022.

71. Amazon knowingly and intentionally encourages at least: (1) streaming service providers, such as Warner Bros. Discovery, Inc. and its HBO Max streaming service; and (2) end-users of the Amazon accused products, such as consumers in the United States, to directly infringe the 297 Patent.

72. For example, Amazon provides the Accused Products as well as technical and business infrastructure, specifications, software, know-how, and other support to instruct and enable streaming service providers to make, use, sell/lease, and/or offer for sale/lease applications that provide unlicensed video streaming services for installation on the Amazon Accused Products, or otherwise provide unlicensed (*e.g.*, Amazon Prime Video) video streaming services to the Amazon Accused Products. Once installed, or otherwise when such services are used, such applications in combination with the Amazon Accused Products directly infringe the 297 Patent.

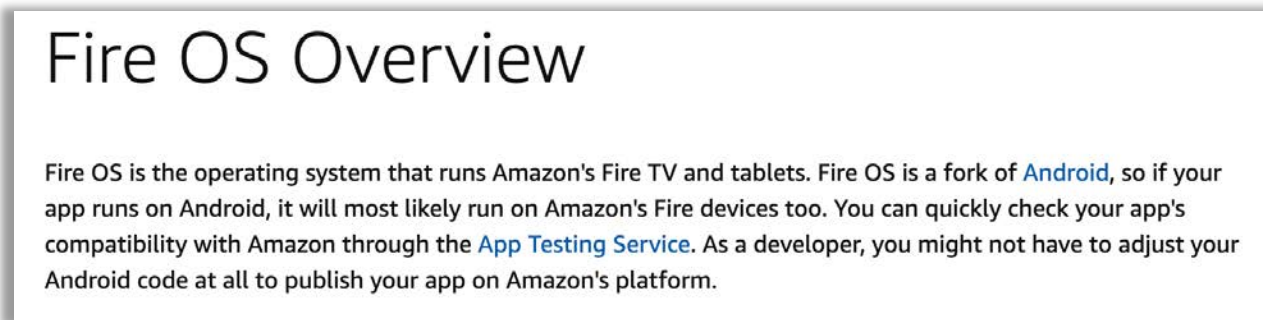
73. For example, Amazon provides an application store and associated infrastructure to enable streaming service providers to provide their Amazon device-specific streaming applications to end users, so that such end users can download, install, and use such streaming applications using the Amazon Accused Products.



See, e.g., https://www.amazon.com/gp/video/getstarted/ref=sv_atv_5.

74. Amazon further encourages third-party streaming service providers to provide such applications for use with the Amazon Accused Products by providing software tools and libraries

that facilitate the process of developing streaming applications that work with the Amazon Accused Products. For example, Amazon provides a “port” of the ExoPlayer library (originally from Google) for video streaming. Because Amazon Fire OS is a “fork of Android,” Android’s ExoPlayer lends itself to be highly compatible with Fire OS. <https://developer.amazon.com/docs/fire-tv/fire-os-overview.html>. Indeed, as Amazon claims, “if your app runs on Android, it will most likely run on Amazon’s Fire devices too. As a developer, you might not have to adjust your Android code at all to publish your app on Amazon’s platform.” *Id.* A screenshot of these instructions is provided here:



See, e.g., <https://developer.amazon.com/docs/fire-tv/fire-os-overview.html>.

75. Amazon provides specific tools and libraries (*e.g.*, its own version of ExoPlayer) for software developers to adopt and to facilitate the development process. Amazon encourages third-party streaming service providers to, “[i]nstead of integrating the default ExoPlayer into your Fire TV app, use the Amazon port of ExoPlayer. The Amazon port of ExoPlayer provides many fixes, workarounds, and other patches to make ExoPlayer work on Amazon devices.” <https://developer.amazon.com/docs/fire-tv/media-players.html>.

Amazon Port of ExoPlayer

ExoPlayer is an open-source media player developed by Google and intended for Android media apps. To learn more about ExoPlayer, see the following resources:

- [ExoPlayer homepage](#)
- [ExoPlayer Video from Google](#)
- [ExoPlayer Developer Guide](#)

Amazon has a port of ExoPlayer that is compatible with Fire TV. Instead of integrating the default ExoPlayer into your Fire TV app, use the Amazon port of ExoPlayer. The Amazon port of ExoPlayer provides many fixes, workarounds, and other patches to make ExoPlayer work on Amazon devices.

To understand how to use ExoPlayer, consult the standard ExoPlayer resources as listed previously.

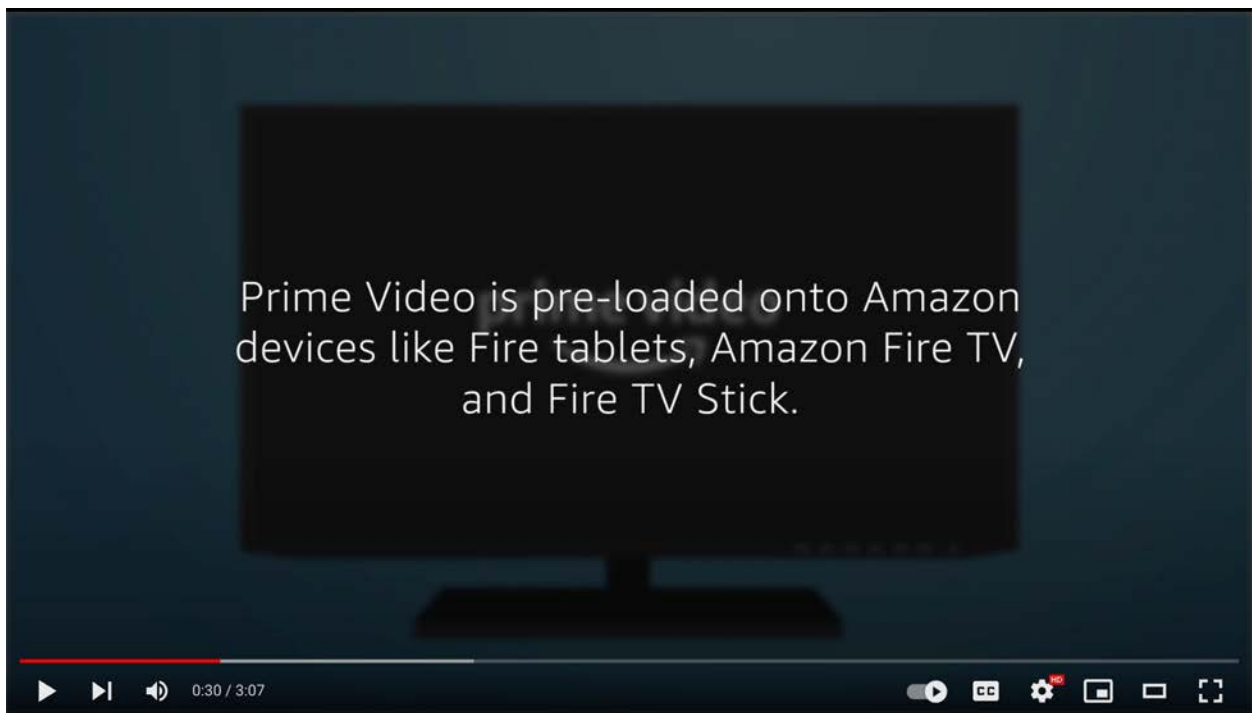
[Download the Amazon Port of Exoplayer](#)

See, e.g., <https://developer.amazon.com/docs/fire-tv/media-players.html>.

76. Providers of unlicensed streaming services thereby directly infringe at least by making and using infringing apparatuses in conjunction with the Amazon Accused Products, such as when testing applications developed for use with the Amazon Accused Products. Such activities directly infringe, as described, for example, at Exhibit 6, a claim chart applying independent claim 1 of the 297 Patent to the Amazon Accused Products operating with the Amazon Prime Video streaming service as an exemplary product.

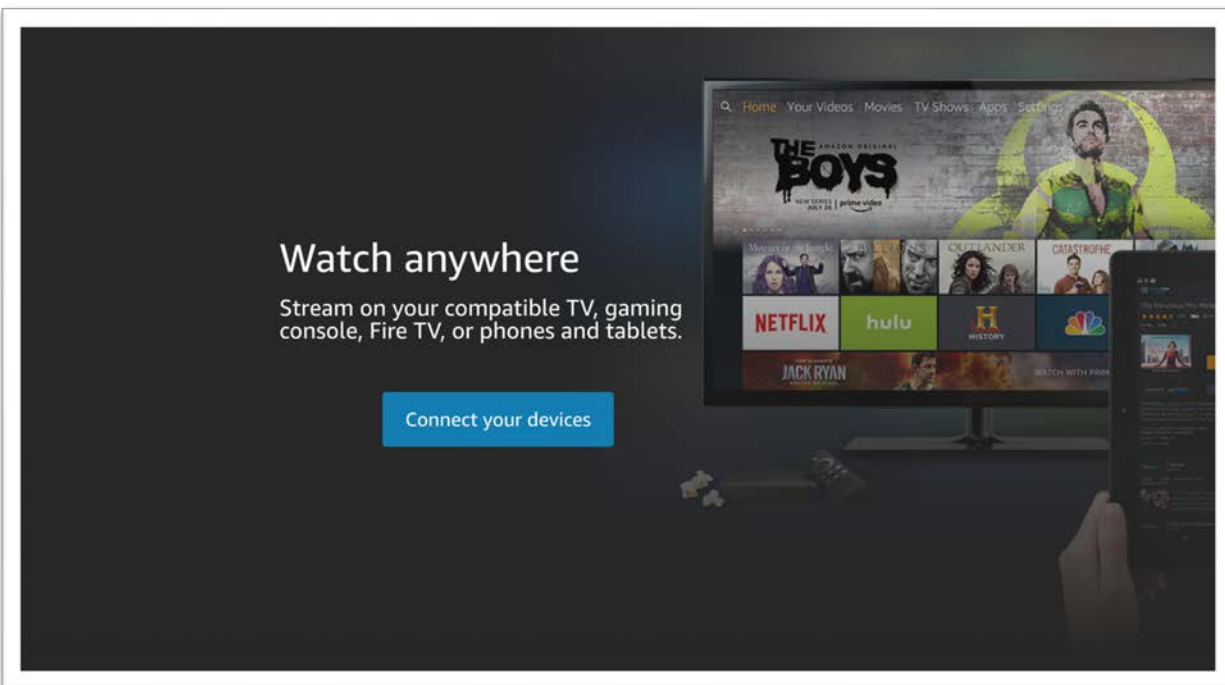
77. Amazon knowingly induces such infringement by providing the Accused Products as well as technical and business infrastructure, know-how, and other support to enable and facilitate such infringement, examples of which are discussed above. Upon information and belief, Amazon specifically intends that its actions will result in infringement of the 297 Patent, or at the very least, because Amazon has been and remains on notice of the 297 Patent and the accused infringement, it has been and is intentionally inducing infringement or at least has been and remains willfully blind regarding the infringement it has induced and continues to induce.

78. Amazon also provides the Amazon Accused Products and instructions to end users so that such end users will use the Accused Products in an infringing manner. For example, Amazon induces end users to download the Amazon Prime Video application and pre-installs the Amazon Prime Video application on the Amazon Accused Products, with the intent that end users use the application to stream video to the Amazon Accused Products. *See also* <https://www.youtube.com/watch?v=gX0YkCjOxUg> at 0:30. When end users do so, this results in direct infringement of the 297 Patent, as described, for example, at Exhibit 6 a claim chart applying independent claim 1 of the 297 Patent to the Amazon Accused Products operating with the Amazon Prime Video streaming service as an exemplary product. The following screenshot confirms that Prime Video is pre-loaded onto Amazon Accused Products:



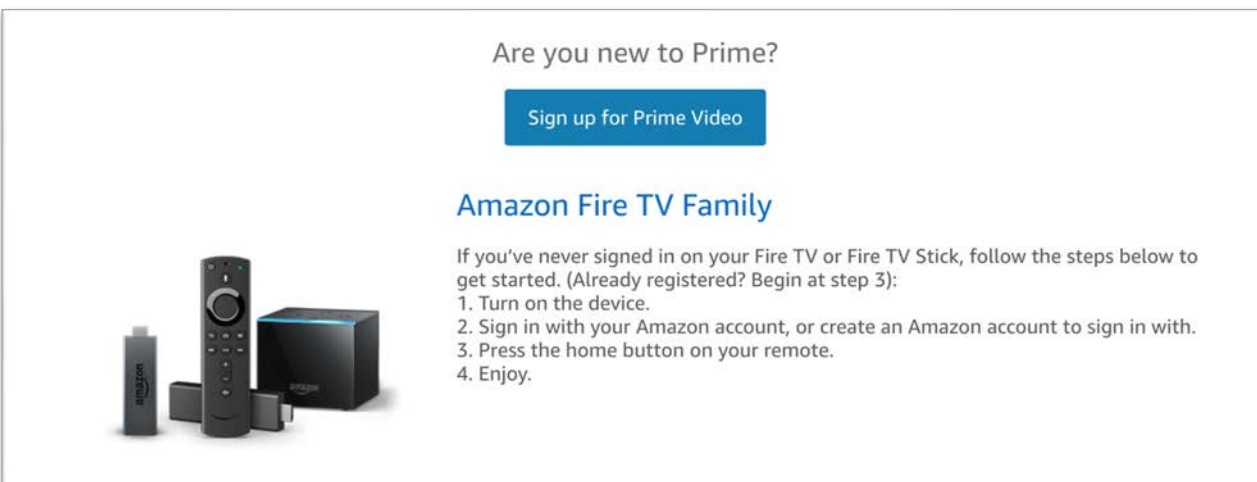
See, e.g., <https://www.youtube.com/watch?v=gX0YkCjOxUg> at 0:30.

79. Amazon provides the streaming platform for its Prime Video service, which allows its consumers to “[w]atch anywhere” and “[s]tream on your compatible TV, gaming console, Fire TV, or phones and tablets.”

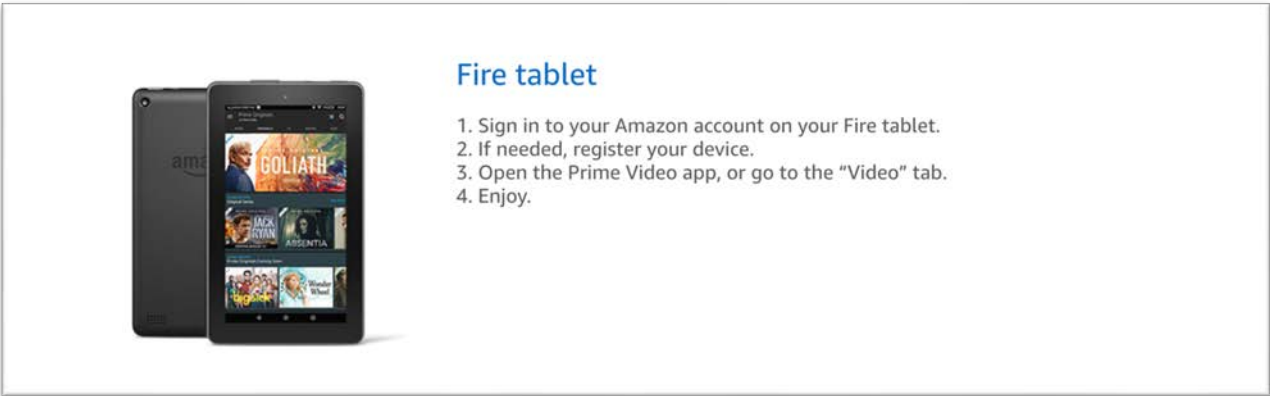


See, e.g., https://www.amazon.com/gp/video/getstarted/ref=sv_atv_5.

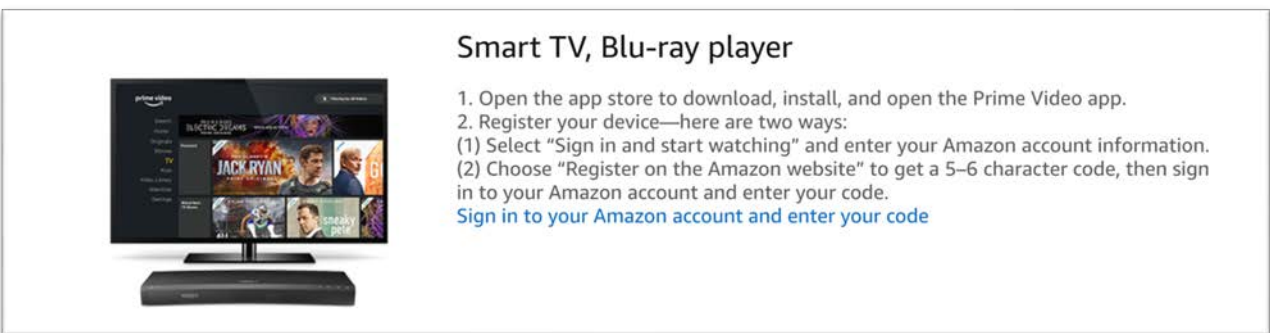
80. As shown below, Amazon provides consumers with instructions on how to access the Prime Video streaming platform and thereby induces consumers to infringe the claims of the 297 Patent. The following are examples of such Amazon instructions:



See, e.g., https://www.amazon.com/gp/video/splash/device_linking.

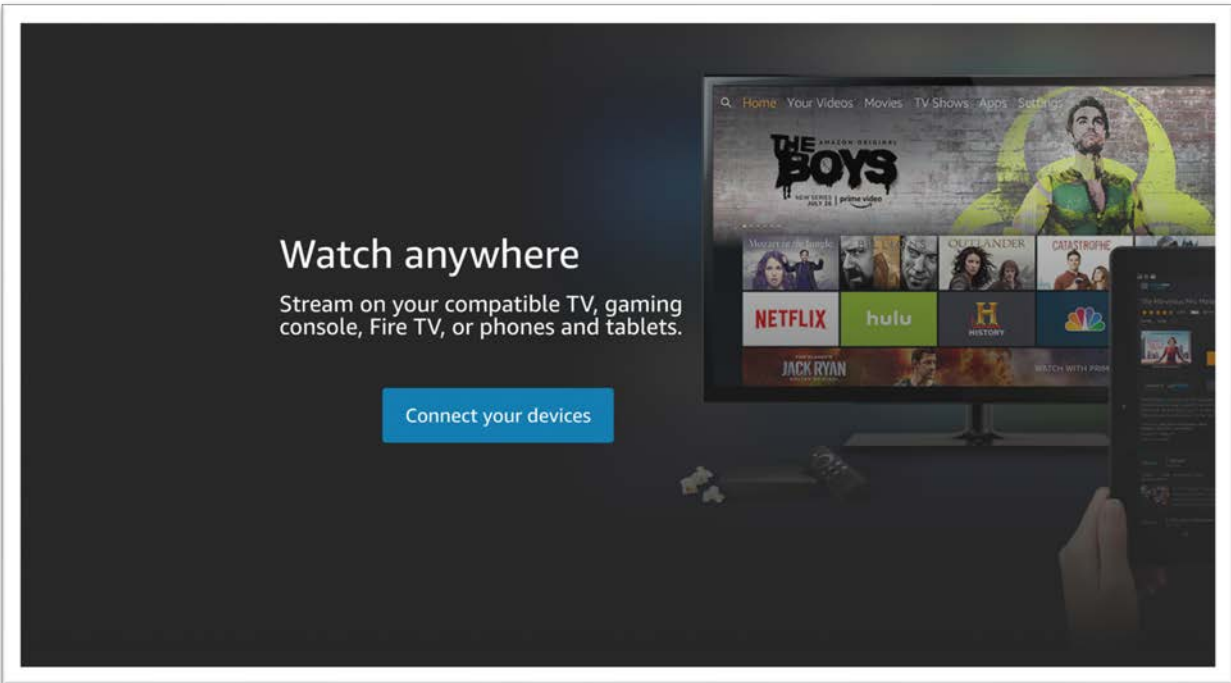


See, e.g., https://www.amazon.com/gp/video/splash/device_linking.



See, e.g., https://www.amazon.com/gp/video/splash/device_linking.

81. Moreover, Amazon instructs and encourages end users to download, install, and use other unlicensed third-party streaming services on Accused Products in a manner that directly infringes the asserted 297 Patent claims. For example, Amazon provides an application store and associated infrastructure to enable end users to download and install streaming applications from third-party streaming service providers and stream video using the Amazon Accused Products. Amazon markets the Accused Products as permitting end users to “[w]atch anywhere” and “[s]tream on your compatible TV, gaming console, Fire TV, or phones and tablets.”



See, e.g., https://www.amazon.com/gp/video/getstarted/ref=sv_atv_5.

82. Amazon encourages and instructs end users of the Amazon Accused Products that “[y]ou’ll never run out of things to watch on Fire TV,” because they can “[e]asily download your favorite apps like Netflix, Prime Video, YouTube,” and “[a]ccess thousands of hours of free movies and TV episodes from popular ad-supported streaming apps like IMDb TV, Tubi, and Pluto TV.” The following screenshot shows an example of those instructions:

Get the most out of your Fire TV Stick 4K

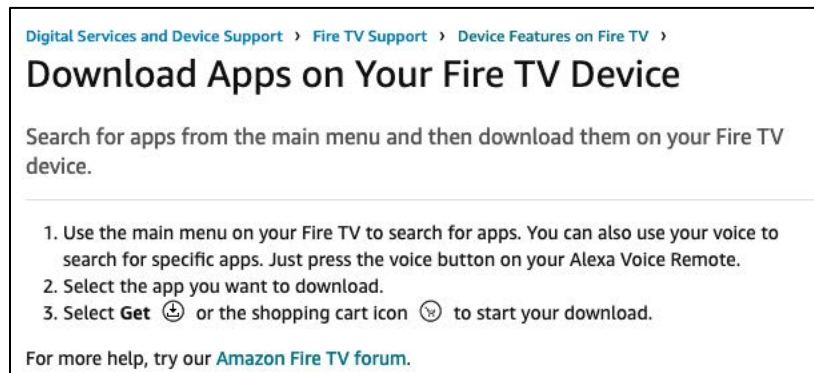
Something’s always on

You’ll never run out of things to watch on Fire TV. Easily download your favorite apps like Netflix, Prime Video, YouTube, Hulu, and Disney+. Access thousands of hours of free movies and TV episodes from popular ad-supported streaming apps like IMDb TV, Tubi, and Pluto TV. Watch or browse live TV, sports, news, and channels from Live on the Main Menu. With Profiles, everyone in your household can quickly get recommendations tailored to what they like. To learn more about your Fire TV, visit amazon.com/firetv.

See, e.g., Amazon Fire Stick 4K Quick User Guide, available at <https://s3-us-west->

2.amazonaws.com/customerdocumentation/Amazon+Fire+TV+User+Guides/Fire+TV+Stick+Device+Documentation/Fire+TV+Stick+4K_Quick+Start+Guide_US.pdf.

83. Amazon encourages and instructs end users of the Amazon Accused Products how to “Download Apps On Your Fire TV Device,” including how to access and search for third-party streaming applications, and download them to the Amazon Accused Products. The following screenshot shows an example of those instructions:



See, e.g., https://www.amazon.com/gp/help/customer/display.html?nodeId=GRDR6KJPL2FT6YHS&ref_=hp_GHH5TUHA7677G4HJ_c_Download-Apps-on-Your-Fire-TV-.

84. When end users do so and stream certain unlicensed streaming services, this results in direct infringement of the 297 Patent, as described, for example, at Exhibit 6, a claim chart applying independent claim 1 of the 297 Patent to the Amazon Accused Products operating with the Amazon Prime Video streaming service as an exemplary product.

85. Amazon customers such as end users directly infringe by using the Accused Products in their intended manner to infringe, e.g., by using the Amazon Accused Products to stream video, thereby making and/or using an infringing apparatus. Amazon knowingly induces such infringement by providing the Accused Products and instructions to enable and facilitate infringement as described above. Upon information and belief, Amazon specifically intends that its actions will result in infringement of the 297 Patent, or at the very least, because Amazon has

been and remains on notice of the 297 Patent and the accused infringement, it has been and remains willfully blind regarding the infringement it has induced and continues to induce.

86. Amazon proceeded in this manner despite actual knowledge of the 297 Patent and that the specific actions it is actively inducing on the part of its customers and other third parties constitute infringement of the 297 Patent as of the date of service of this Complaint and/or the Complaint filed with the United States International Trade Commission on October 24, 2022. At the very least, because Amazon is on notice of the 297 Patent and the accused infringement, as of the date of service of this Complaint and/or the Complaint filed with the United States International Trade Commission with detailed infringement contentions on October 24, 2022, it is willfully blind regarding infringement it has induced and continues to induce.

87. Upon information and belief, Amazon's infringement of this patent continues to be willful, at least since Amazon's knowledge of its infringement as described above.

88. Amazon's acts of infringement have caused and continue to cause damage to Plaintiff and Plaintiff is entitled to recover from Amazon's damages sustained as a result of Amazon's infringement of the Asserted Patents, but in no event less than a reasonable royalty.

COUNT II: INFRINGEMENT OF U.S. PATENT NO. 7,295,673

89. DivX incorporates and realleges paragraphs 1 – 63 above as if fully set forth herein.

90. On information and belief, Amazon has infringed and continues to infringe, directly and/or indirectly, one or more claims of the 673 Patent, including but not limited to claims 29-32, pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by, among other things: making, using, offering for sale, selling, and/or importing into the United States without authority, the Amazon Accused Products.

91. A claim chart applying independent claim 29 of the 673 Patent to a current-generation Amazon Fire Stick operating with the Amazon Prime Video streaming service as an

exemplary streaming application, as exemplary of the Amazon Accused Products (and components thereof), can be found at Exhibit 7. Amazon directly infringes the asserted claims by making, using (e.g., when testing its Prime Video service with the Amazon Accused Products), selling, offering to sell, and/or importing the Amazon Accused Products, each of which comprises the claimed decrypting digital video decoder. The current-generation Amazon Fire Stick is depicted here:



See, e.g., *Fire TV Stick with Alexa Voice Remote (includes TV controls), (HD streaming device)*, Amazon, <https://www.amazon.com/fire-tv-stick-with-3rd-gen-alexa-voice-remote/dp/B08C1W5N87>.

92. The descriptions in Exhibit 7 are preliminary and based on publicly available information. Plaintiff expects to further develop the evidence of infringement by the infringing Amazon Prime Video application and video playback devices, including, for example, without

limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets, after obtaining discovery from Amazon in the course of this Action.

93. On information and belief, Amazon has induced and continues to induce infringement of claims of the 673 Patent pursuant to 35 U.S.C. § 271(b), including without limitation at least claims 29-32, by encouraging its customers and other third parties to make/and or use the claimed systems, such as by using the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets. Such making and/or use of the claimed systems, constitutes infringement, literally or under the doctrine of equivalents, of one or more claims of the 673 Patent by such third parties. Amazon's acts of encouragement include: providing and intending that third parties download the infringing Amazon Prime Video application and use the infringing video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets, in a manner that infringes, and providing instructions to do so; purposefully and voluntarily placing the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets, in the stream of commerce with the expectation that it will be used by customers in the United States including in the Eastern District of Virginia; providing components that enable/and or make use of the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets, through its own and third-party media platforms, including websites and television. Furthermore, Amazon has actual knowledge of how the infringing

Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets, work, including how they are used by customers. Amazon has undertaken these acts of encouragement with the specific intent that end-users use such Accused Products as intended by Amazon in a manner that infringes the asserted claims of the 673 Patent.

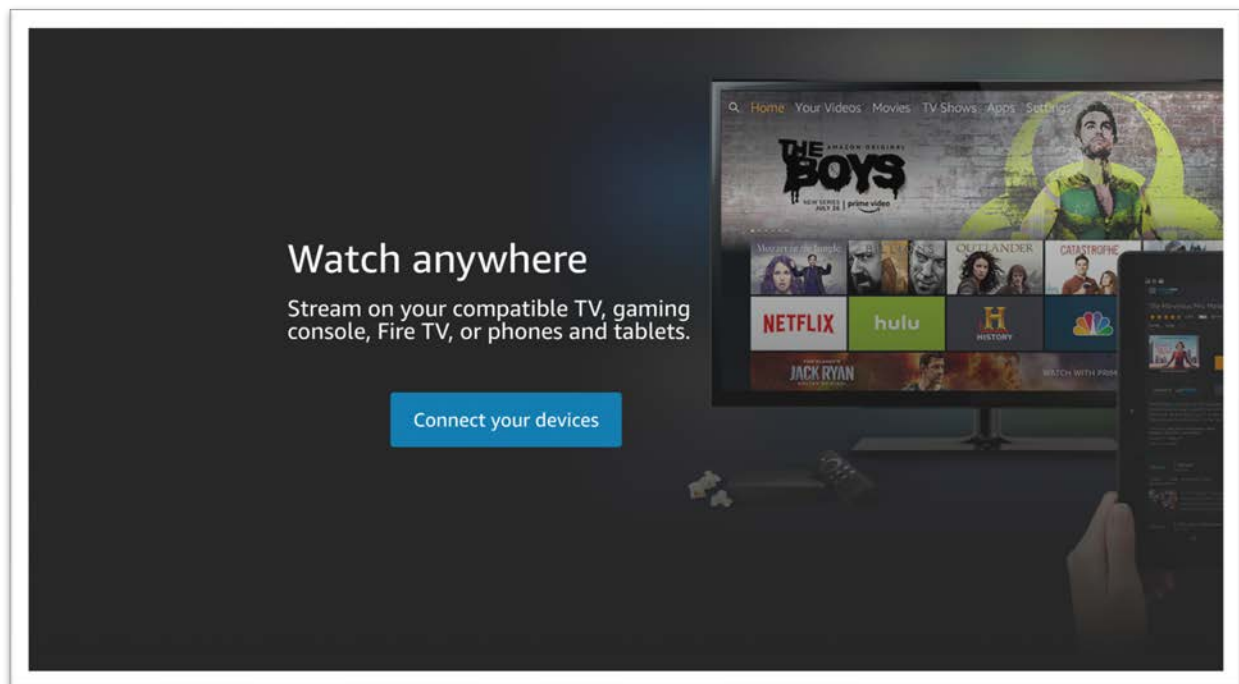
94. On information and belief, Amazon was placed on notice of DivX's portfolio of patents, including the 673 Patent, at least as of November 3, 2020, when Complainant DivX served a subpoena *duces tecum* and subpoena *ad testificandum* on Amazon by overnight FedEx delivery in the ITC Investigation No. 337-TA-1222, *In the Matter of Certain Video Processing Devices, Components Thereof, and Digital Smart Televisions Containing the Same I*. Exhibit 13 (Stipulation Extending Time for Non-Party Amazon.com, Inc. to Respond to Complainant DivX, LLC's Subpoena) at 1. On information and belief, Amazon has since been studying DivX's patent portfolio and DivX's litigations, including the litigations in the Central District of California where DivX had asserted the 673 Patent against Netflix and Hulu. On information and belief, on February 11, 2022, Amazon confirmed its awareness of the DivX's portfolio and of DivX's infringement allegations implicating Amazon's technology. Exhibit 12 at 1-2 (Amazon Motion to Intervene). At the very least, Amazon was on notice of the 673 Patent and the accused infringement, as of the date of filing and/or service of this Complaint and/or the Complaint captioned *Certain Video Processing Devices and Components Thereof*, Inv. No 337-TA-___ (pending institution) filed with the United States International Trade Commission with detailed infringement contentions on October 24, 2022.

95. Amazon knowingly and intentionally encourages at least: (1) streaming services providers, such as Warner Bros. Discovery, Inc. and its HBO Max streaming service; and (2) end

users of the Amazon accused products, such as consumers in the United States, to directly infringe the 673 Patent.

96. For example, Amazon provides the Accused Products as well as technical and business infrastructure, specifications, software, know-how, and other support to instruct and enable streaming service providers to make, use, sell/lease, and/or offer for sale/lease applications that provide video streaming services for installation on the Amazon Accused Products, or otherwise provide video streaming services to the Amazon Accused Products. Once installed, or otherwise when such services are used, such applications in combination with the Amazon Accused Products directly infringe the 673 Patent.

97. For example, Amazon provides an application store and associated infrastructure to enable certain unlicensed streaming service providers to provide their Amazon device-specific streaming applications to end users, so that such end users can download, install, and use such streaming applications using the Amazon Accused Products.



See, e.g., https://www.amazon.com/gp/video/getstarted/ref=sv_atv_5.

98. Amazon further encourages third-party providers of unlicensed streaming services to provide such applications for use with the Amazon Accused Products by providing software tools and libraries that facilitate the process of developing streaming applications that work with the Amazon Accused Products. For example, Amazon provides a “port” of the ExoPlayer library (originally from Google) for video streaming. Because Amazon Fire OS is a “fork of Android,” Android’s ExoPlayer lends itself to be highly compatible with Fire OS. <https://developer.amazon.com/docs/fire-tv/fire-os-overview.html>. Indeed, as Amazon claims, “if your app runs on Android, it will most likely run on Amazon’s Fire devices too. You can quickly check your app’s compatibility with Amazon through the App Testing Service. As a developer, you might not have to adjust your Android code at all to publish your app on Amazon’s platform.” *Id.*

Fire OS Overview

Fire OS is the operating system that runs Amazon's Fire TV and tablets. Fire OS is a fork of [Android](#), so if your app runs on Android, it will most likely run on Amazon's Fire devices too. You can quickly check your app's compatibility with Amazon through the [App Testing Service](#). As a developer, you might not have to adjust your Android code at all to publish your app on Amazon's platform.

See, e.g., <https://developer.amazon.com/docs/fire-tv/fire-os-overview.html>.

99. Amazon provides specific tools and libraries (*e.g.*, its own version of ExoPlayer) for software developers to adopt and to facilitate the development process. Amazon encourages third-party streaming service providers to, “[i]nstead of integrating the default ExoPlayer into your Fire TV app, use the Amazon port of ExoPlayer. The Amazon port of ExoPlayer provides many fixes, workarounds, and other patches to make ExoPlayer work on Amazon devices.” <https://developer.amazon.com/docs/fire-tv/media-players.html>.

Amazon Port of ExoPlayer

ExoPlayer is an open-source media player developed by Google and intended for Android media apps. To learn more about ExoPlayer, see the following resources:

- [ExoPlayer homepage](#)
- [ExoPlayer Video from Google](#)
- [ExoPlayer Developer Guide](#)

Amazon has a port of ExoPlayer that is compatible with Fire TV. Instead of integrating the default ExoPlayer into your Fire TV app, use the Amazon port of ExoPlayer. The Amazon port of ExoPlayer provides many fixes, workarounds, and other patches to make ExoPlayer work on Amazon devices.

To understand how to use ExoPlayer, consult the standard ExoPlayer resources as listed previously.

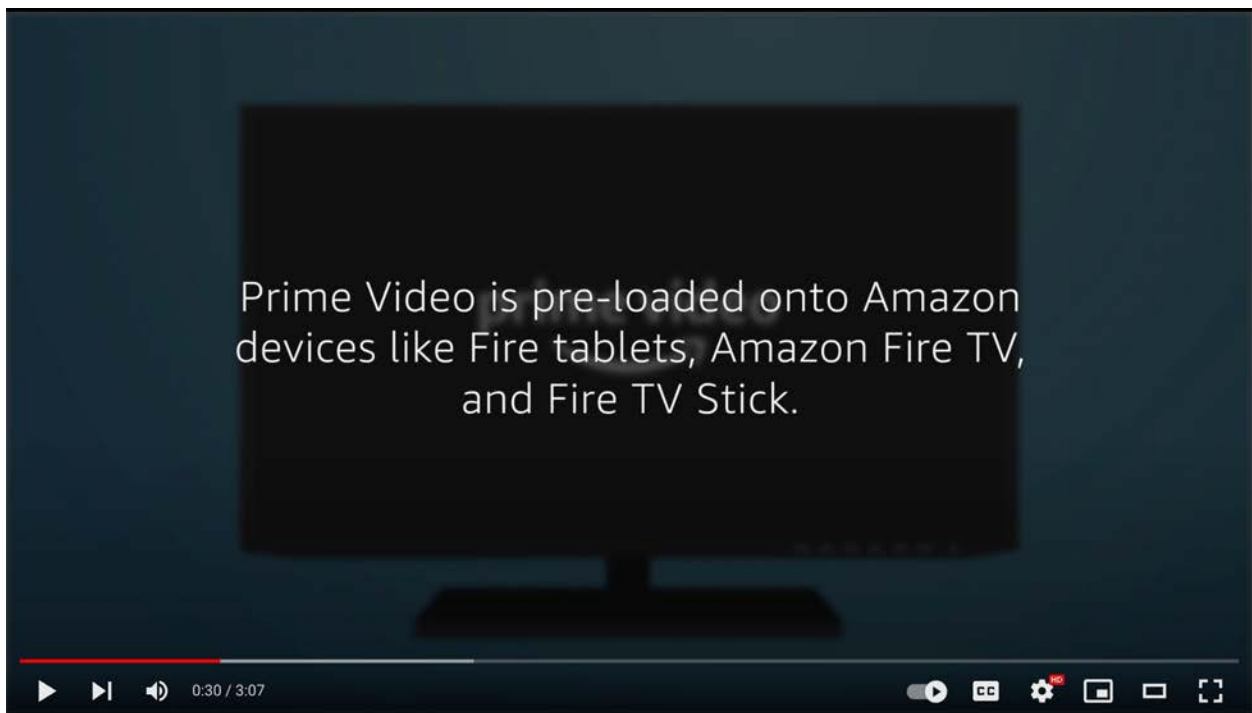
[Download the Amazon Port of Exoplayer](#)

See, e.g., <https://developer.amazon.com/docs/fire-tv/media-players.html>.

100. Providers of unlicensed streaming services thereby directly infringe at least by making and using infringing apparatuses in conjunction with the Amazon Accused Products, such as when testing applications developed for use with the Amazon Accused Products. Such activities directly infringe, as described, for example, at Exhibit 7, a claim chart applying independent claim 29 of the 673 Patent to the Amazon Accused Products operating with the Amazon Prime Video streaming service as an exemplary product.

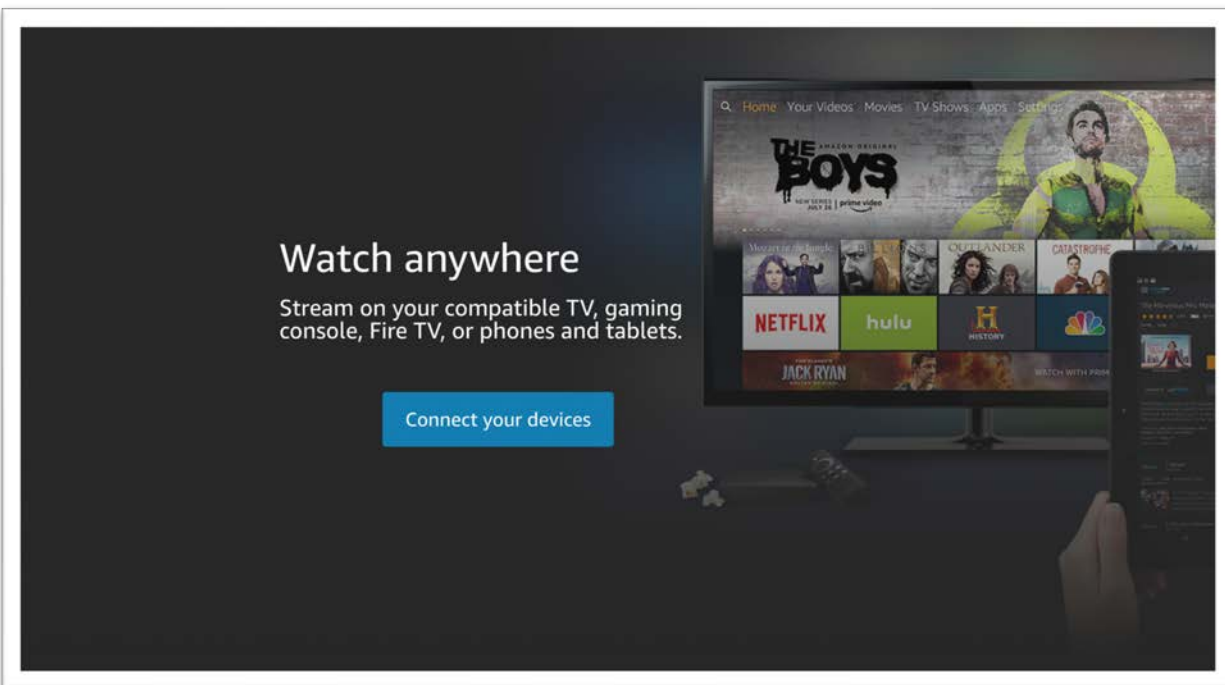
101. Amazon knowingly induces such infringement by providing the Accused Products as well as technical and business infrastructure, know-how, and other support to enable and facilitate such infringement, examples of which are discussed above, knowing of the 673 Patent. Upon information and belief, Amazon specifically intends that its actions will result in infringement of the 673 Patent, or at the very least, because Amazon has been and remains on notice of the 673 Patent and the accused infringement, it has been and remains willfully blind regarding the infringement it has induced and continues to induce.

102. Amazon also provides the Amazon Accused Products and instructions to end users so that such end users will use the Accused Products in an infringing manner. For example, Amazon induces end users to download the Amazon Prime Video application and pre-installs the Amazon Prime Video application on the Amazon Accused Products, with the intent that end users use the application to stream video to the Amazon Accused Products. *See also* <https://www.youtube.com/watch?v=gX0YkCjOxUg> at 0:30. When end users do so, this results in direct infringement of the 673 Patent, as described, for example, at Exhibit 7 a claim chart applying independent claim 29 of the 673 Patent to the Amazon Accused Products operating with the Amazon Prime Video streaming service as an exemplary product. The following screenshot confirms that Prime Video is pre-loaded onto Amazon Accused Products:



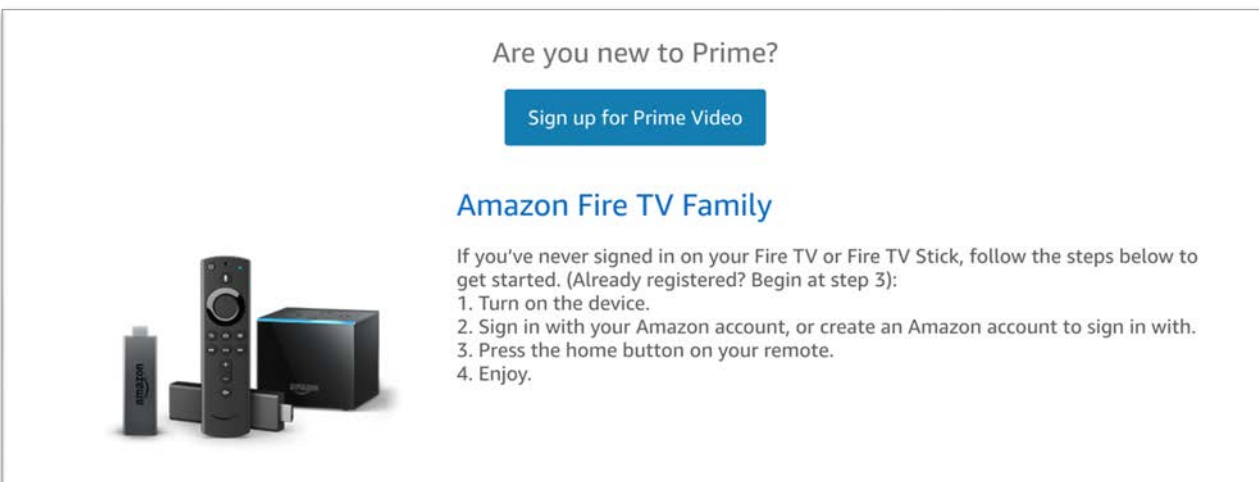
See, e.g., <https://www.youtube.com/watch?v=gX0YkCjOxUg> at 0:30.

103. Amazon provides the streaming platform for its Prime Video service, which allows its consumers to “[w]atch anywhere” and “[s]tream on your compatible TV, gaming console, Fire TV, or phones and tablets.”




See, e.g., https://www.amazon.com/gp/video/getstarted/ref=sv_atv_5.

104. As shown below, Amazon provides consumers with instructions on how to access the Prime Video streaming platform and thereby induces consumers to infringe the claims of the 673 Patent. The following are examples of such Amazon instructions:




See, e.g., https://www.amazon.com/gp/video/splash/device_linking.

An Amazon Fire tablet is shown in two orientations: vertically and horizontally. The screen displays the Amazon Prime Video interface with various movie and TV show thumbnails.

Fire tablet

1. Sign in to your Amazon account on your Fire tablet.
2. If needed, register your device.
3. Open the Prime Video app, or go to the "Video" tab.
4. Enjoy.

See, e.g., https://www.amazon.com/gp/video/splash/device_linking.

A television set is shown with the Amazon Prime Video interface on its screen. Below the TV is a black Amazon Fire TV Stick, which is the Blu-ray player component of the setup.

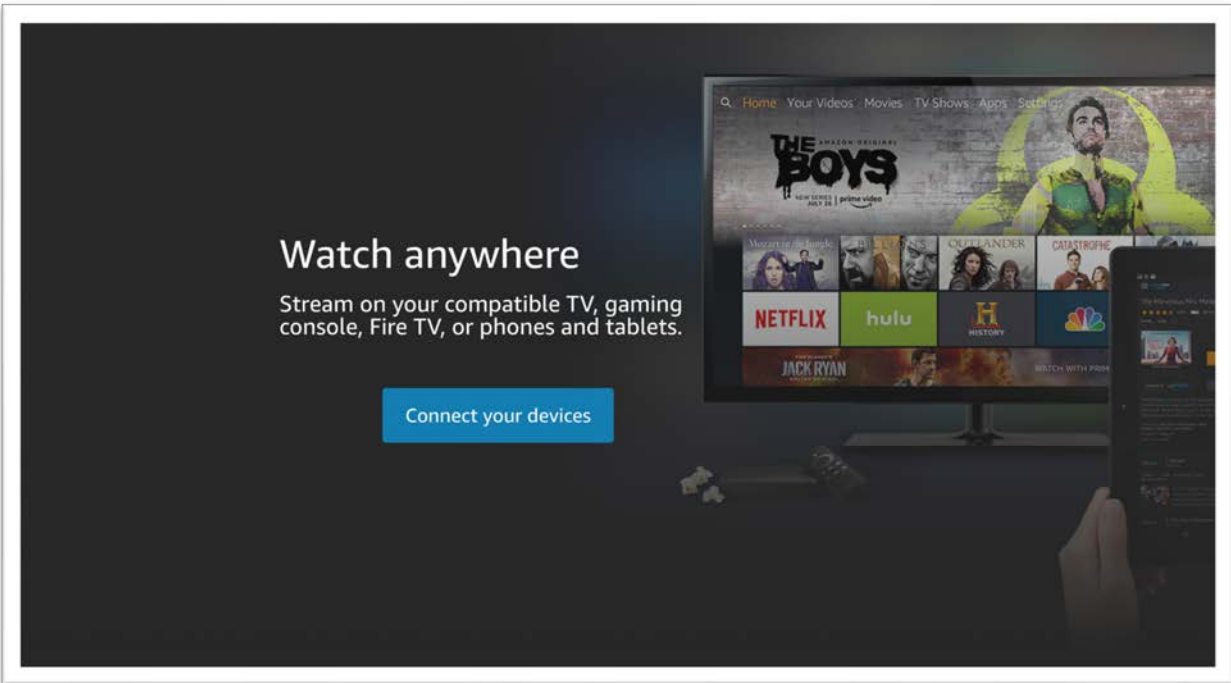
Smart TV, Blu-ray player

1. Open the app store to download, install, and open the Prime Video app.
2. Register your device—here are two ways:
 - (1) Select "Sign in and start watching" and enter your Amazon account information.
 - (2) Choose "Register on the Amazon website" to get a 5–6 character code, then sign in to your Amazon account and enter your code.

[Sign in to your Amazon account and enter your code](#)

See, e.g., https://www.amazon.com/gp/video/splash/device_linking.

105. Moreover, Amazon instructs and encourages end users to download, install, and use third-party unlicensed streaming services in a manner that directly infringes the asserted 673 Patent claims. For example, Amazon provides an application store and associated infrastructure to enable end users to download and install streaming applications from third-party streaming service providers and stream video using the Amazon Accused Products. Amazon markets the Accused Products as permitting end users to “[w]atch anywhere” and “[s]tream on your compatible TV, gaming console, Fire TV, or phones and tablets.”



See, e.g., https://www.amazon.com/gp/video/getstarted/ref=sv_atv_5.

106. Amazon encourages and instructs end users of the Amazon Accused Products that “[y]ou’ll never run out of things to watch on Fire TV,” because they can “[e]asily download your favorite apps like Netflix, Prime Video, YouTube, Hulu, and Disney+,” and “[a]ccess thousands of hours of free movies and TV episodes from popular ad-supported streaming apps like IMDb TV, Tubi, and Pluto TV.” The following screenshot shows an example of those instructions:

Get the most out of your Fire TV Stick 4K

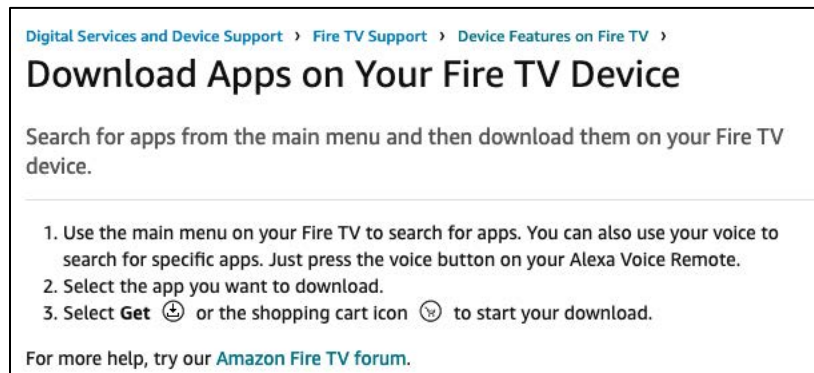
Something’s always on

You’ll never run out of things to watch on Fire TV. Easily download your favorite apps like Netflix, Prime Video, YouTube, Hulu, and Disney+. Access thousands of hours of free movies and TV episodes from popular ad-supported streaming apps like IMDb TV, Tubi, and Pluto TV. Watch or browse live TV, sports, news, and channels from Live on the Main Menu. With Profiles, everyone in your household can quickly get recommendations tailored to what they like. To learn more about your Fire TV, visit amazon.com/firetv.

See, e.g., Amazon Fire Stick 4K Quick User Guide, available at <https://s3-us-west->

2.amazonaws.com/customerdocumentation/Amazon+Fire+TV+User+Guides/Fire+TV+Stick+Device+Documentation/Fire+TV+Stick+4K_Quick+Start+Guide_US.pdf.

107. Amazon encourages and instructs end users of the Amazon Accused Products how to “Download Apps On Your Fire TV Device,” including how to access and search for third-party streaming applications, and download them to the Amazon Accused Products. The following screenshot shows an example of those instructions:



See, e.g., https://www.amazon.com/gp/help/customer/display.html?nodeId=GRDR6KJPL2FT6YHS&ref_=hp_GHH5TUHA7677G4HJ_c_Download-Apps-on-Your-Fire-TV-.

108. When end users download and use these unlicensed streaming services on the Accused Products, this results in direct infringement of the 673 Patent, as described, for example, at Exhibit 7, a claim chart applying independent claim 29 of the 673 Patent to the Amazon Accused Products operating with the Amazon Prime Video streaming service as an exemplary product.

109. Amazon customers such as end users directly infringe by using the Accused Products in their intended manner to infringe, e.g., by using the Amazon Accused Products to stream video, thereby making and/or using an infringing apparatus. Amazon knowingly induces such infringement by providing the Accused Products and instructions to enable and facilitate infringement as described above. Upon information and belief, Amazon specifically intends that

its actions will result in infringement of the 673 Patent, or at the very least, because Amazon has been and remains on notice of the 673 Patent and the accused infringement, it has been and remains willfully blind regarding the infringement it has induced and continues to induce.

110. Amazon proceeded in this manner despite actual knowledge of the 673 Patent and that the specific actions it is actively inducing on the part of its customers and other third parties constitute infringement of the 673 Patent as of the date of service of this Complaint and/or the Complaint filed with the United States International Trade Commission on October 24, 2022. At the very least, because Amazon is on notice of the 673 Patent and the accused infringement, as of the date of filing and/or service of this Complaint and/or the Complaint filed with the United States International Trade Commission with detailed infringement contentions on October 24, 2022, it is willfully blind regarding infringement it has induced and continues to induce.

111. Upon information and belief, Amazon's infringement of this patent continues to be willful, at least since Amazon's knowledge of its infringement as described above.

112. Amazon's acts of infringement cause damage to Plaintiff and Plaintiff is entitled to recover from Amazon damages sustained as a result of Amazon's infringement of the Asserted Patents, but in no event less than a reasonable royalty.

COUNT III: INFRINGEMENT OF U.S. PATENT NO. 10,225,588

113. DivX incorporates and realleges paragraphs 1 – 63 above as if fully set forth herein.

114. On information and belief, Amazon has infringed and continues to infringe, directly and/or indirectly, one or more claims of the 588 Patent, including but not limited to claims 1-10 and 12-21, pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by, among other things: making, using, offering for sale, selling, and/or importing into the United States without authority, the Amazon Accused Products.

115. A claim chart applying independent claim 1 of the 588 Patent to a current-generation Amazon Fire Stick operating with the Amazon Prime Video streaming service as an exemplary streaming application, as exemplary of the Amazon Accused Products (and components thereof), can be found at Exhibit 8. Amazon directly infringes the asserted claims by making, using (e.g., when testing its Prime Video service with the Amazon Accused Products), selling, offering to sell, and/or importing the Amazon Accused Products, each of which comprises the claimed playback device. The current-generation Amazon Fire Stick is depicted here:



See, e.g., *Fire TV Stick with Alexa Voice Remote (includes TV controls), (HD streaming device)*, Amazon, <https://www.amazon.com/fire-tv-stick-with-3rd-gen-alexa-voice-remote/dp/B08C1W5N87>.

116. The descriptions in Exhibit 8 are preliminary and based on publicly available information. Plaintiff expects to further develop the evidence of infringement by the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets, after obtaining discovery from Amazon in the course of this Action.

117. On information and belief, Amazon has induced and continues to induce infringement of claims of the 588 Patent pursuant to 35 U.S.C. § 271(b), including without limitation at least claims 1-10 and 12-21 by encouraging its customers and other third parties to make/and or use the claimed systems, such as by using the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets. Such making and/or use of the claimed systems constitutes infringement, literally or under the doctrine of equivalents, of one or more claims of the 588 Patent by such third parties. Amazon's acts of encouragement include: providing and intending that third parties use the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets, in a manner that infringes, and providing instructions to do so; purposefully and voluntarily placing the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets, in the stream of commerce with the expectation that it will be used by customers in the Eastern District of Virginia; providing components that enable/and or make use of the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon

Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets, through its own and third-party media platforms, including websites and television. Furthermore, Amazon has actual knowledge of how the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets, work, including how they are used by customers. Amazon has undertaken these acts of encouragement with the specific intent that end-users use such Accused Products as intended by Amazon in a manner that infringes the asserted claims of the 588 Patent.

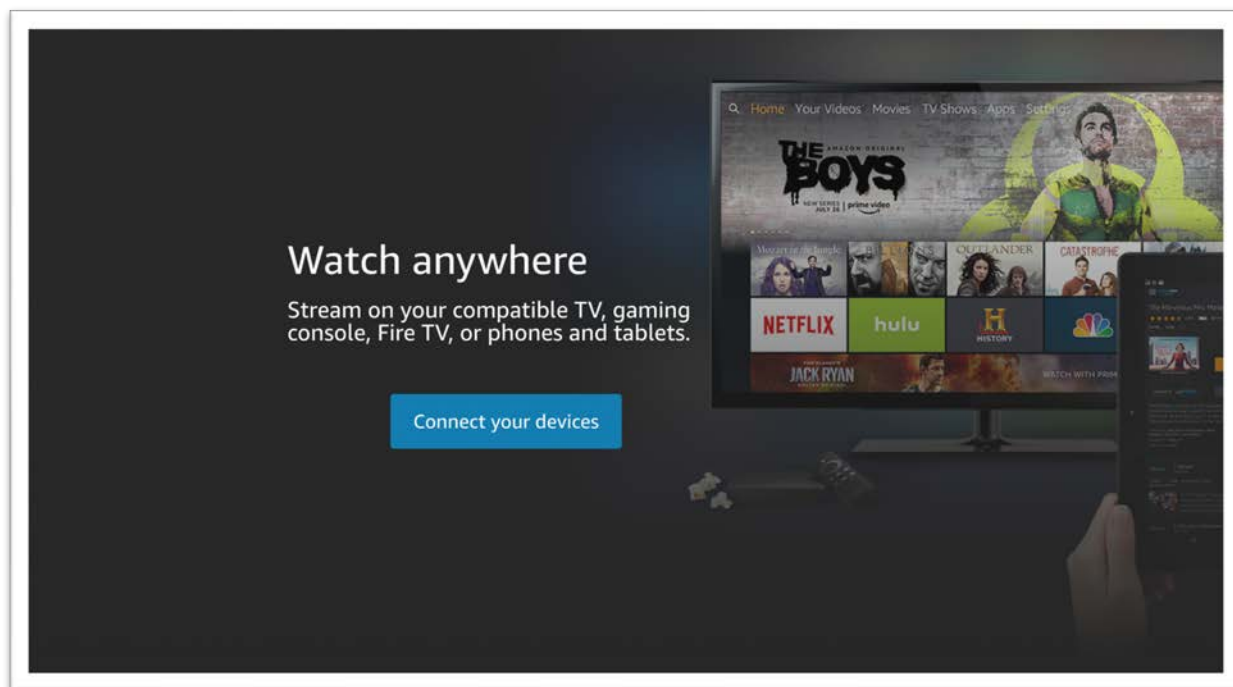
118. On information and belief, Amazon was placed on notice of DivX's portfolio of patents, including the 588 Patent, at least as of November 3, 2020, when Complainant DivX served a subpoena *duces tecum* and subpoena *ad testificandum* on Amazon by overnight FedEx delivery in the ITC Investigation No. 337-TA-1222, *In the Matter of Certain Video Processing Devices, Components Thereof, and Digital Smart Televisions Containing the Same I*. Exhibit 13 (Stipulation Extending Time for Non-Party Amazon.com, Inc. to Respond to Complainant DivX, LLC's Subpoena) at 1. On information and belief, Amazon has since been studying DivX's patent portfolio and DivX's litigations, including the litigations in the Central District of California where DivX has asserted the 588 Patent against Netflix and Hulu. On information and belief, on February 11, 2022, Amazon confirmed its awareness of DivX's portfolio and of DivX's infringement allegations implicating Amazon's technology. Exhibit 12 at 1-2 (Amazon Motion to Intervene). At the very least, Amazon was on notice of the 588 Patent and the accused infringement, as of the date of service and/or service of this Complaint and/or the Complaint captioned *Certain Video Processing Devices and Components Thereof*, Inv. No 337-TA-____ (pending institution) filed with

the United States International Trade Commission with detailed infringement contentions on October 24, 2022.

119. Amazon knowingly and intentionally encourages at least: (1) streaming service providers, such as Warner Bros. Discovery, Inc. and its HBO Max streaming service; and (2) end-users of the Amazon accused products, such as consumers in the United States, to directly infringe the 588 Patent.

120. For example, Amazon provides the Accused Products as well as technical and business infrastructure, specifications, software, know-how, and other support to instruct and enable streaming service providers to make, use, sell/lease, and/or offer for sale/lease applications that provide unlicensed video streaming services for installation on the Amazon Accused Products, or otherwise provide video streaming services to the Amazon Accused Products. Once installed, or otherwise when such services are used, such applications in combination with the Amazon Accused Products directly infringe the 588 Patent.

121. For example, Amazon provides an application store and associated infrastructure to enable unlicensed streaming service providers to provide their Amazon device-specific streaming applications to end users, so that such end users can download, install, and use such streaming applications using the Amazon Accused Products.



See, e.g., https://www.amazon.com/gp/video/getstarted/ref=sv_atv_5.

122. Amazon further encourages unlicensed third-party streaming service providers to provide such applications for use with the Amazon Accused Products by providing software tools and libraries that facilitate the process of developing streaming applications that work with the Amazon Accused Products. For example, Amazon provides a “port” of the ExoPlayer library (originally from Google) for video streaming. Because Amazon Fire OS is a “fork of Android,” Android’s ExoPlayer lends itself to be highly compatible with Fire OS. <https://developer.amazon.com/docs/fire-tv/fire-os-overview.html>. Indeed, as Amazon claims, “if your app runs on Android, it will most likely run on Amazon’s Fire devices too. You can quickly check your app’s compatibility with Amazon through the App Testing Service. As a developer, you might not have to adjust your Android code at all to publish your app on Amazon’s platform.” *Id.*

Fire OS Overview

Fire OS is the operating system that runs Amazon's Fire TV and tablets. Fire OS is a fork of [Android](#), so if your app runs on Android, it will most likely run on Amazon's Fire devices too. You can quickly check your app's compatibility with Amazon through the [App Testing Service](#). As a developer, you might not have to adjust your Android code at all to publish your app on Amazon's platform.

See, e.g., <https://developer.amazon.com/docs/fire-tv/fire-os-overview.html>.

123. Amazon provides specific tools and libraries (e.g., its own version of ExoPlayer) for software developers to adopt and to facilitate the development process. Amazon encourages third-party streaming service providers to, “[i]nstead of integrating the default ExoPlayer into your Fire TV app, use the Amazon port of ExoPlayer. The Amazon port of ExoPlayer provides many fixes, workarounds, and other patches to make ExoPlayer work on Amazon devices.” See, <https://developer.amazon.com/docs/fire-tv/media-players.html>.

Amazon Port of ExoPlayer

ExoPlayer is an open-source media player developed by Google and intended for Android media apps. To learn more about ExoPlayer, see the following resources:

- [ExoPlayer homepage](#)
- [ExoPlayer Video from Google](#)
- [ExoPlayer Developer Guide](#)

Amazon has a port of ExoPlayer that is compatible with Fire TV. Instead of integrating the default ExoPlayer into your Fire TV app, use the Amazon port of ExoPlayer. The Amazon port of ExoPlayer provides many fixes, workarounds, and other patches to make ExoPlayer work on Amazon devices.

To understand how to use ExoPlayer, consult the standard ExoPlayer resources as listed previously.

[Download the Amazon Port of Exoplayer](#)

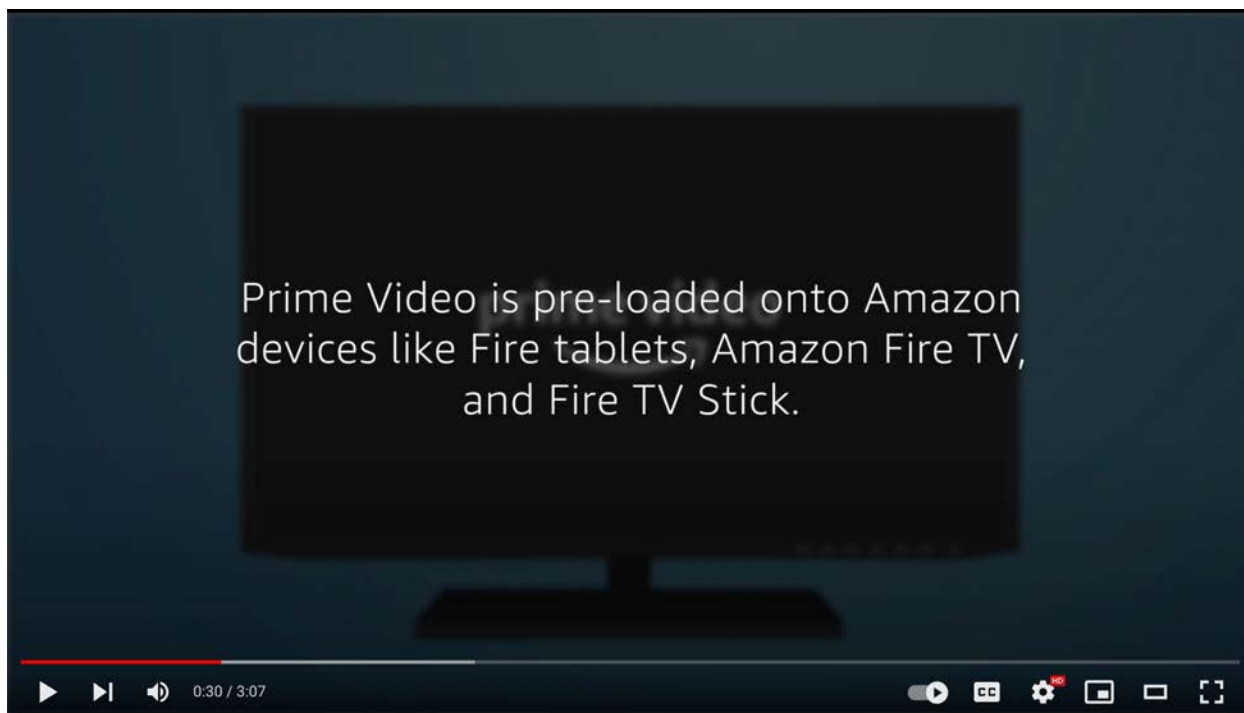
See, e.g., <https://developer.amazon.com/docs/fire-tv/media-players.html>.

124. Providers of unlicensed streaming services thereby directly infringe at least by making and using infringing apparatuses in conjunction with the Amazon Accused Products, such

as when testing applications developed for use with the Amazon Accused Products. Such activities directly infringe, as described, for example, at Exhibit 8, a claim chart applying independent claim 1 of the 588 Patent to the Amazon Accused Products operating with the Amazon Prime Video streaming service as an exemplary product.

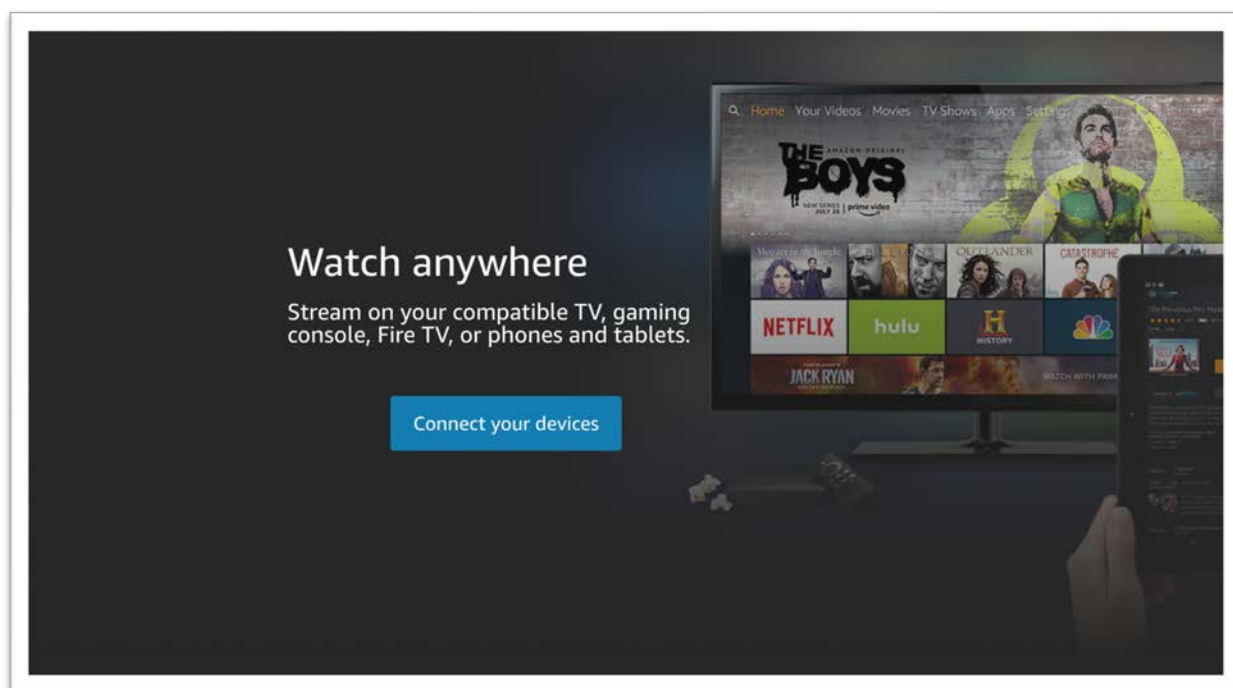
125. Amazon knowingly induces such infringement by providing the Accused Products as well as technical and business infrastructure, know-how, and other support to enable and facilitate such infringement, examples of which are discussed above. Upon information and belief, Amazon specifically intends that its actions will result in infringement of the 588 Patent, or at the very least, because Amazon has been and remains on notice of the 588 Patent and the accused infringement, it has been and remains willfully blind regarding the infringement it has induced and continues to induce.

126. Amazon also provides the Amazon Accused Products and instructions to end users so that such end users will use the Accused Products in an infringing manner. For example, Amazon induces end users to download the Amazon Prime Video application and pre-installs the Amazon Prime Video application on the Amazon Accused Products, with the intent that end users use the application to stream video to the Amazon Accused Products. *See also* <https://www.youtube.com/watch?v=gX0YkCjOxUg> at 0:30. When end users do so, this results in direct infringement of the 588 Patent, as described, for example, at Exhibit 8 a claim chart applying independent claim 1 of the 588 Patent to the Amazon Accused Products operating with the Amazon Prime Video streaming service as an exemplary product. The following screenshot confirms that Prime Video is pre-loaded onto Amazon Accused Products:



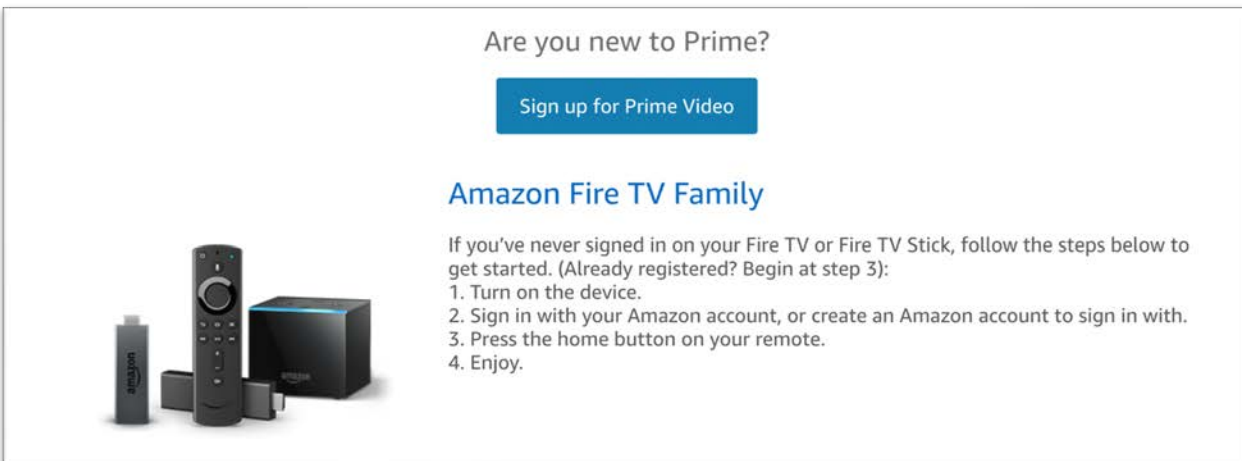
See, e.g., <https://www.youtube.com/watch?v=gX0YkCjOxUg> at 0:30.

127. Amazon provides the streaming platform for its Prime Video service, which allows its consumers to “[w]atch anywhere” and “[s]tream on your compatible TV, gaming console, Fire TV, or phones and tablets.”

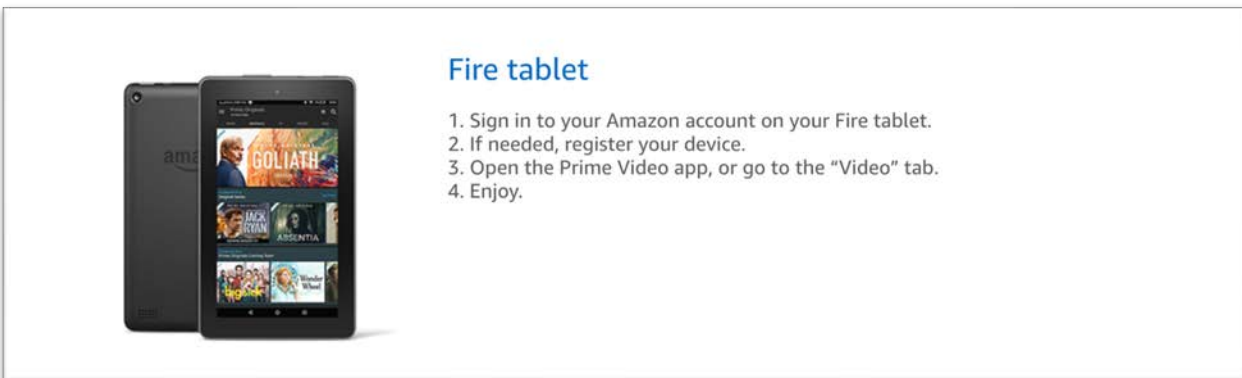


See, e.g., https://www.amazon.com/gp/video/getstarted/ref=sv_atv_5.


128. As shown below, Amazon provides consumers with the Accused Products as well as instructions on how to access the Prime Video streaming platform and thereby induces consumers to infringe the claims of the 588 Patent. The following are examples of such Amazon instructions:



See, e.g., https://www.amazon.com/gp/video/splash/device_linking.



See, e.g., https://www.amazon.com/gp/video/splash/device_linking.



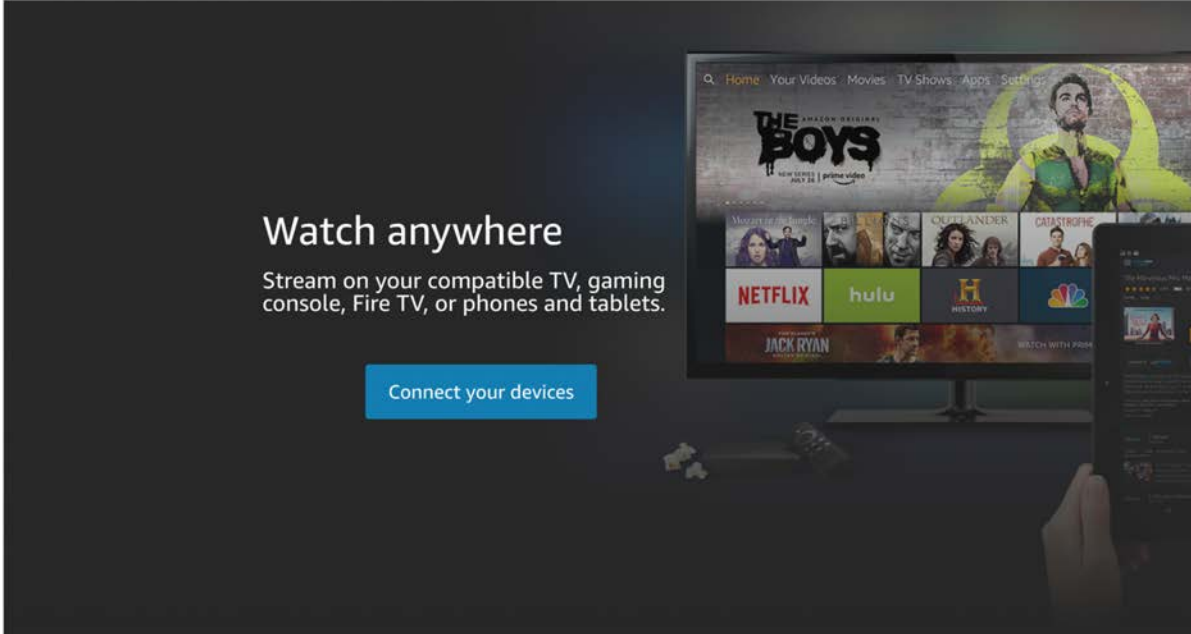
Smart TV, Blu-ray player

1. Open the app store to download, install, and open the Prime Video app.
2. Register your device—here are two ways:
 - (1) Select “Sign in and start watching” and enter your Amazon account information.
 - (2) Choose “Register on the Amazon website” to get a 5–6 character code, then sign in to your Amazon account and enter your code.

[Sign in to your Amazon account and enter your code](#)

See, e.g., https://www.amazon.com/gp/video/splash/device_linking.

129. Moreover, Amazon instructs and encourages end users to download, install, and use unlicensed third-party streaming services in a manner that directly infringes the asserted 588 Patent claims. For example, Amazon provides an application store and associated infrastructure to enable end users to download and install streaming applications from third-party streaming service providers and stream video using the Amazon Accused Products. Amazon markets the Accused Products as permitting end users to “[w]atch anywhere” and “[s]tream on your compatible TV, gaming console, Fire TV, or phones and tablets.”



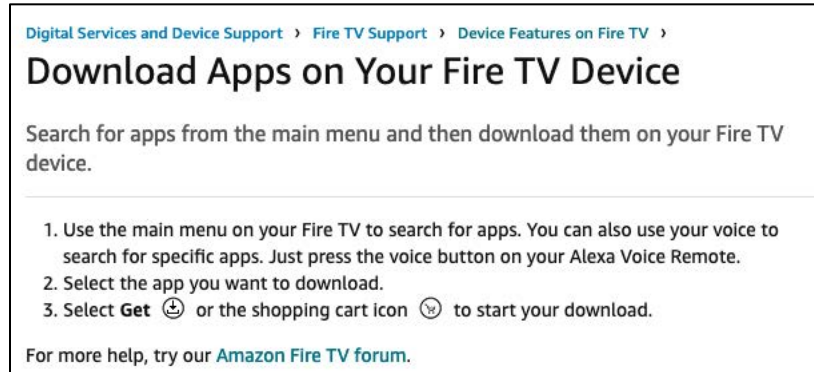
See, e.g., https://www.amazon.com/gp/video/getstarted/ref=sv_atv_5.

130. Amazon encourages and instructs end users of the Amazon Accused Products that “[y]ou’ll never run out of things to watch on Fire TV,” because they can “[e]asily download your favorite apps like Netflix, Prime Video, YouTube,” and “[a]ccess thousands of hours of free movies and TV episodes from popular ad-supported streaming apps like IMDb TV, Tubi, and Pluto TV.” The following screenshot shows an example of those instructions:



See, e.g., Amazon Fire Stick 4K Quick User Guide, *available at* https://s3-us-west-2.amazonaws.com/customerdocumentation/Amazon+Fire+TV+User+Guides/Fire+TV+Stick+Device+Documentation/Fire+TV+Stick+4K_Quick+Start+Guide_US.pdf.

131. Amazon encourages and instructs end users of the Amazon Accused Products how to “Download Apps On Your Fire TV Device,” including how to access and search for third-party streaming applications, and download them to the Amazon Accused Products. The following screenshot shows an example of those instructions:



See, e.g., https://www.amazon.com/gp/help/customer/display.html?nodeId=GRDR6KJPL2FT6YHS&ref_=hp_GHH5TUHA7677G4HJ_c_Download-Apps-on-Your-Fire-TV-

132. When end users do so using the Accused hardware products to stream from a non-licensed streaming service, this results in direct infringement of the 588 Patent, as described, for example, at Exhibit 8 a claim chart applying independent claim 1 of the 588 Patent to the Amazon Accused Products operating with the Amazon Prime Video streaming service as an exemplary product.

133. Amazon proceeded in this manner despite actual knowledge of the 588 Patent and that the specific actions it is actively inducing on the part of its customers and other third parties constitute infringement of the 588 Patent as of the date of service of this Complaint and/or the Complaint filed with the United States International Trade Commission. At the very least, because Amazon is on notice of the 588 Patent and the accused infringement, as of the date of filing and/or service of this Complaint and/or the Complaint filed with the United States International Trade Commission with detailed infringement contentions, it is willfully blind regarding infringement it has induced and continues to induce.

134. Upon information and belief, Amazon's infringement of this patent continues to be willful, at least since Amazon's knowledge of its infringement as described above.

135. Amazon's acts of infringement have caused and continue to cause damage to Plaintiff and Plaintiff is entitled to recover from Amazon damages sustained as a result of Amazon's infringement of the Asserted Patents, but in no event less than a reasonable royalty.

COUNT IV: INFRINGEMENT OF U.S. PATENT NO. 11,102,553

136. DivX incorporates and realleges paragraphs 1 – 63 above as if fully set forth herein.

137. On information and belief, Amazon has infringed and continues to infringe, directly and/or indirectly, one or more claims of the 553 Patent, including but not limited to claims 11-13, 15-17, 19-21, and 23-25 pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by, among other things: making, using, offering for sale, selling, and/or importing into the United States without authority, the Amazon Accused Products.

138. A claim chart applying independent claim 11 of the 553 Patent to a current-generation Amazon Fire Stick operating with the Amazon Prime Video streaming service as an exemplary streaming application, as exemplary of the Amazon Accused Products, can be found at Exhibit 9. Amazon directly infringes the asserted claims by making, using (*e.g.*, when testing its Prime Video service with the Amazon Accused Products), selling, offering to sell, and/or importing the Amazon Accused Products, each of which comprises the claimed playback device for playing back encrypted video. The descriptions in Exhibit 9 are preliminary and based on publicly available information. Plaintiff expects to further develop the evidence of infringement by the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Prime Video, Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets, after obtaining discovery from Amazon in the course of this Action. The current-generation Amazon Fire Stick is depicted here:



See, e.g., <https://www.amazon.com/fire-tv-stick-with-3rd-gen-alexa-voice-remote/dp/B08C1W5N87>.

139. On information and belief, Amazon has induced and continues to induce infringement of claims of the 553 Patent pursuant to 35 U.S.C. § 271(b), including without limitation at least claims 11-13, 15-17, 19-21, and 23-25 by encouraging its customers and other third parties to make/and or use the claimed systems, such as by using the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets. Such making and/or use of the claimed systems constitutes infringement, literally or under the doctrine of equivalents, of one or more claims of the 553 Patent by such third parties. Amazon's acts of encouragement include: providing and intending that third parties use the

infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets, in a manner that infringes, and providing instructions to do so; purposefully and voluntarily placing the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets, in the stream of commerce with the expectation that it will be used by customers in the Eastern District of Virginia; providing components that enable and/or make use of the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets, through its own and third-party media platforms, including websites and television. Furthermore, Amazon has actual knowledge of how the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets, work, including how they are used by customers. Amazon has undertaken these acts of encouragement with the specific intent that end users use such Accused Products as intended by Amazon in a manner that infringes the asserted claims of the 553 Patent.

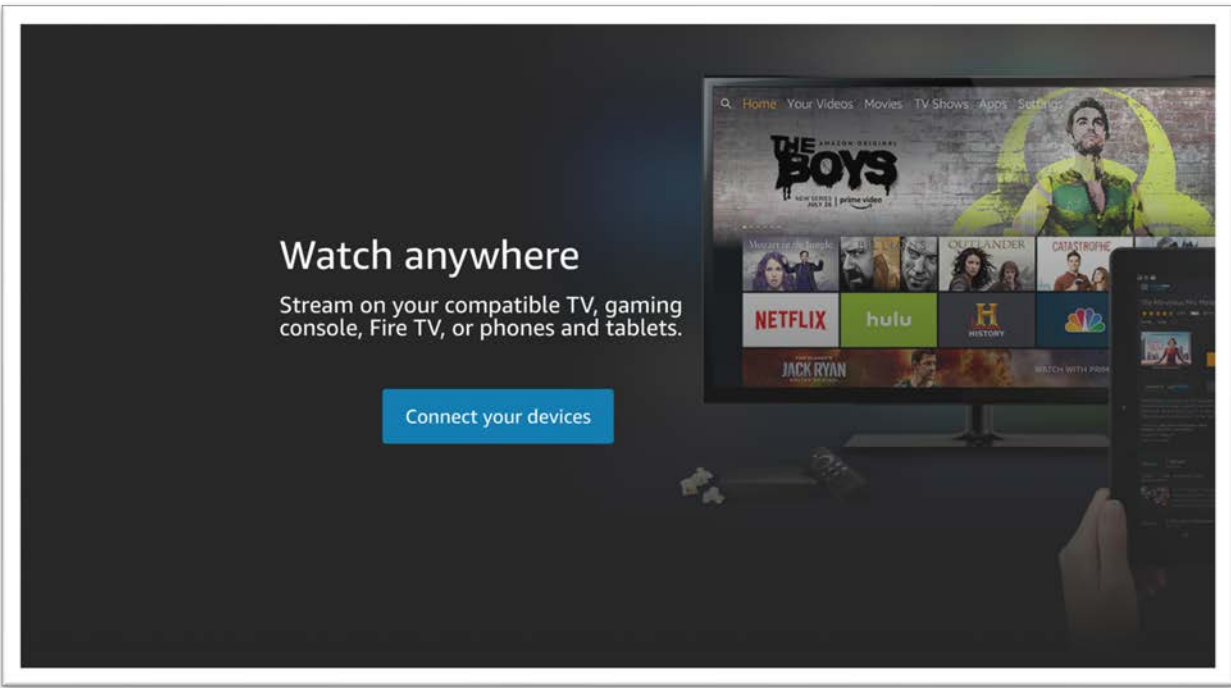
140. On information and belief, Amazon was placed on notice of DivX's portfolio of patents, including the 553 Patent, at least as of November 3, 2020, when Complainant DivX served a subpoena *duces tecum* and subpoena *ad testificandum* on Amazon by overnight FedEx delivery in the ITC Investigation No. 337-TA-1222, *In the Matter of Certain Video Processing Devices, Components Thereof, and Digital Smart Televisions Containing the Same I*. Exhibit 13 (Stipulation Extending Time for Non-Party Amazon.com, Inc. to Respond to Complainant DivX, LLC's

Subpoena) at 1. On information and belief, Amazon has since been studying DivX's patent portfolio and DivX's litigations, including the litigations in the Central District of California where DivX has asserted U.S. Patent No. 10,212,486 against Netflix and Hulu. U.S. Patent No. 10,212,486 issued from U.S. Patent Application 15/615,626, from which U.S. Patent Application 16/686,727, issued as the 553 Patent, is a later continuation. On information and belief, on February 11, 2022, Amazon confirmed its awareness of DivX's portfolio and of DivX's infringement allegations implicating Amazon's technology. Exhibit 12 at 1-2 (Amazon Motion to Intervene). At the very least, Amazon was on notice of the 553 Patent and the accused infringement, as of the date of filing and/or service of this Complaint and/or the Complaint captioned *Certain Video Processing Devices and Components Thereof*, Inv. No 337-TA-____ (pending institution) filed with the United States International Trade Commission with detailed infringement contentions on October 24, 2022.

141. Amazon knowingly and intentionally encourages at least: (1) streaming services providers, such as Warner Bros. Discovery, Inc. and its HBO Max streaming service; and (2) end users of the Amazon accused products, such as consumers in the United States, to directly infringe the 553 Patent.

142. For example, Amazon provides the Accused Products as well as technical and business infrastructure, specifications, software, know-how, and other support to instruct and enable unlicensed streaming service providers to make, use, sell/lease, and/or offer for sale/lease applications that provide video streaming services for installation on the Amazon Accused Products, or otherwise provide video streaming services to the Amazon Accused Products. Once installed, or otherwise when such services are used, such applications in combination with the Amazon Accused Products directly infringe the 553 Patent.

143. For example, Amazon provides an application store and associated infrastructure to enable unlicensed streaming service providers to provide their Amazon device-specific streaming applications to end users, so that such end users can download, install, and use such streaming applications using the Amazon Accused Products.



See, e.g., https://www.amazon.com/gp/video/getstarted/ref=sv_atv_5.

144. Amazon further encourages unlicensed third-party streaming service providers to provide such applications for use with the Amazon Accused Products by providing software tools and libraries that facilitate the process of developing streaming applications that work with the Amazon Accused Products. For example, Amazon provides a “port” of the ExoPlayer library (originally from Google) for video streaming. Because Amazon Fire OS is a “fork of Android,” Android’s ExoPlayer lends itself to be highly compatible with Fire OS. <https://developer.amazon.com/docs/fire-tv/fire-os-overview.html>. Indeed, as Amazon claims, “if your app runs on Android, it will most likely run on Amazon’s Fire devices too. You can quickly check your app’s compatibility with Amazon through the App Testing Service. As a developer,

you might not have to adjust your Android code at all to publish your app on Amazon's platform.”

Id.

Fire OS Overview

Fire OS is the operating system that runs Amazon's Fire TV and tablets. Fire OS is a fork of [Android](#), so if your app runs on Android, it will most likely run on Amazon's Fire devices too. You can quickly check your app's compatibility with Amazon through the [App Testing Service](#). As a developer, you might not have to adjust your Android code at all to publish your app on Amazon's platform.

See, e.g., <https://developer.amazon.com/docs/fire-tv/fire-os-overview.html>.

145. Amazon provides specific tools and libraries (e.g., its own version of ExoPlayer) for software developers to adopt and to facilitate the development process. Amazon encourages third-party streaming service providers to, “[i]nstead of integrating the default ExoPlayer into your Fire TV app, use the Amazon port of ExoPlayer. The Amazon port of ExoPlayer provides many fixes, workarounds, and other patches to make ExoPlayer work on Amazon devices.”

<https://developer.amazon.com/docs/fire-tv/media-players.html>.

Amazon Port of ExoPlayer

ExoPlayer is an open-source media player developed by Google and intended for Android media apps. To learn more about ExoPlayer, see the following resources:

- [ExoPlayer homepage](#)
- [ExoPlayer Video from Google](#)
- [ExoPlayer Developer Guide](#)

Amazon has a port of ExoPlayer that is compatible with Fire TV. Instead of integrating the default ExoPlayer into your Fire TV app, use the Amazon port of ExoPlayer. The Amazon port of ExoPlayer provides many fixes, workarounds, and other patches to make ExoPlayer work on Amazon devices.

To understand how to use ExoPlayer, consult the standard ExoPlayer resources as listed previously.

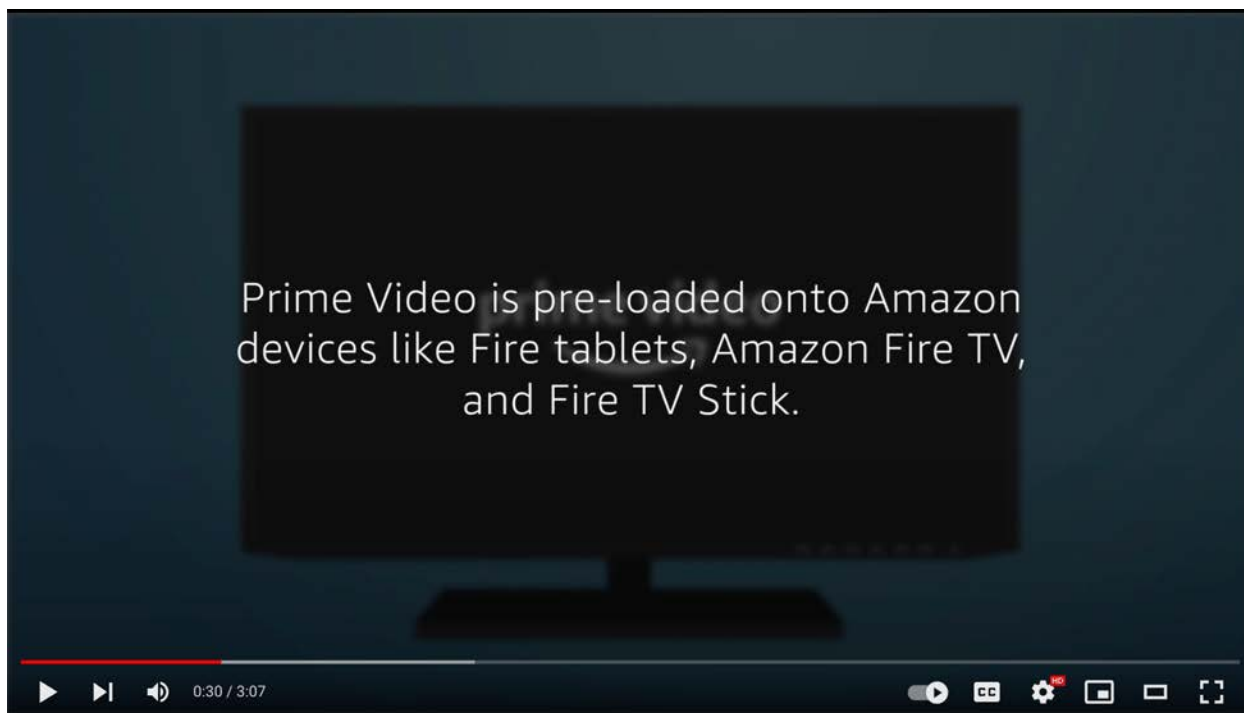
[Download the Amazon Port of Exoplayer](#)

See, e.g., <https://developer.amazon.com/docs/fire-tv/media-players.html>.

146. Providers of unlicensed streaming services thereby directly infringe at least by making and using infringing apparatuses in conjunction with the Amazon Accused Products, such as when testing applications developed for use with the Amazon Accused Products. Such activities directly infringe, as described, for example, at Exhibit 9, a claim chart applying independent claim 11 of the 553 Patent to the Amazon Accused Products operating with the Amazon Prime Video streaming service as an exemplary product.

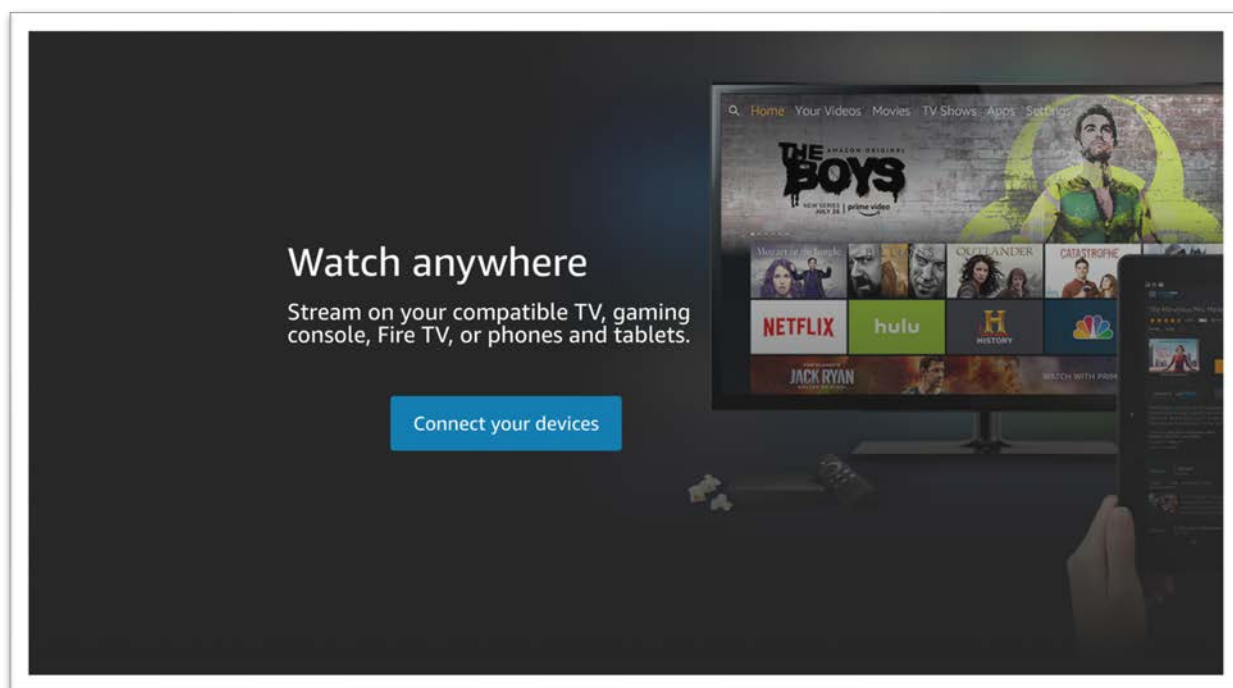
147. Amazon induces such infringement by providing the Accused Products as well as technical and business infrastructure, know-how, and other support to enable and facilitate such infringement, examples of which are discussed above, knowing of the 553 Patent. Upon information and belief, Amazon specifically intends that its actions will result in infringement of the 553 Patent, or subjectively believes that its actions will result in infringement of the 553 Patent but took deliberate actions to avoid learning of those facts.

148. Amazon also provides the Amazon Accused Products and instructions to end users so that such end users will use the Accused Products in an infringing manner. For example, Amazon induces end users to download the Amazon Prime Video application and/or pre-installs the Amazon Prime Video application on the Amazon Accused Products, with the intent that end users use the application to stream video to the Amazon Accused Products. *See also* (<https://www.youtube.com/watch?v=gX0YkCjOxUg> at 0:30. When end users do so, this results in direct infringement of the 553 Patent, as described, for example, at Exhibit 9 a claim chart applying independent claim 11 of the 553 Patent to the Amazon Accused Products operating with the Amazon Prime Video streaming service as an exemplary product. The following screenshot from an instructional YouTube video titled “Prime Video: How to Buy or Rent Prime Video,” created by Amazon, confirms that Prime Video is pre-loaded onto Amazon Accused Products:



See, e.g., <https://www.youtube.com/watch?v=gX0YkCjOxUg> at 0:30.

149. Amazon provides the streaming platform for its Prime Video service, which allows its consumers to “[w]atch anywhere” and “[s]tream on your compatible TV, gaming console, Fire TV, or phones and tablets.”




See, e.g., https://www.amazon.com/gp/video/getstarted/ref=sv_atv_5.

150. As shown below, Amazon provides consumers with the Accused Products and instructions on how to access the Prime Video streaming platform and thereby induces consumers to infringe the claims of the 553 Patent. The following are examples of such Amazon instructions:

Are you new to Prime?

[Sign up for Prime Video](#)


Amazon Fire TV Family



If you've never signed in on your Fire TV or Fire TV Stick, follow the steps below to get started. (Already registered? Begin at step 3):

1. Turn on the device.
2. Sign in with your Amazon account, or create an Amazon account to sign in with.
3. Press the home button on your remote.
4. Enjoy.


See, e.g., https://www.amazon.com/gp/video/splash/device_linking.



Fire tablet

1. Sign in to your Amazon account on your Fire tablet.
2. If needed, register your device.
3. Open the Prime Video app, or go to the "Video" tab.
4. Enjoy.

See, e.g., https://www.amazon.com/gp/video/splash/device_linking.



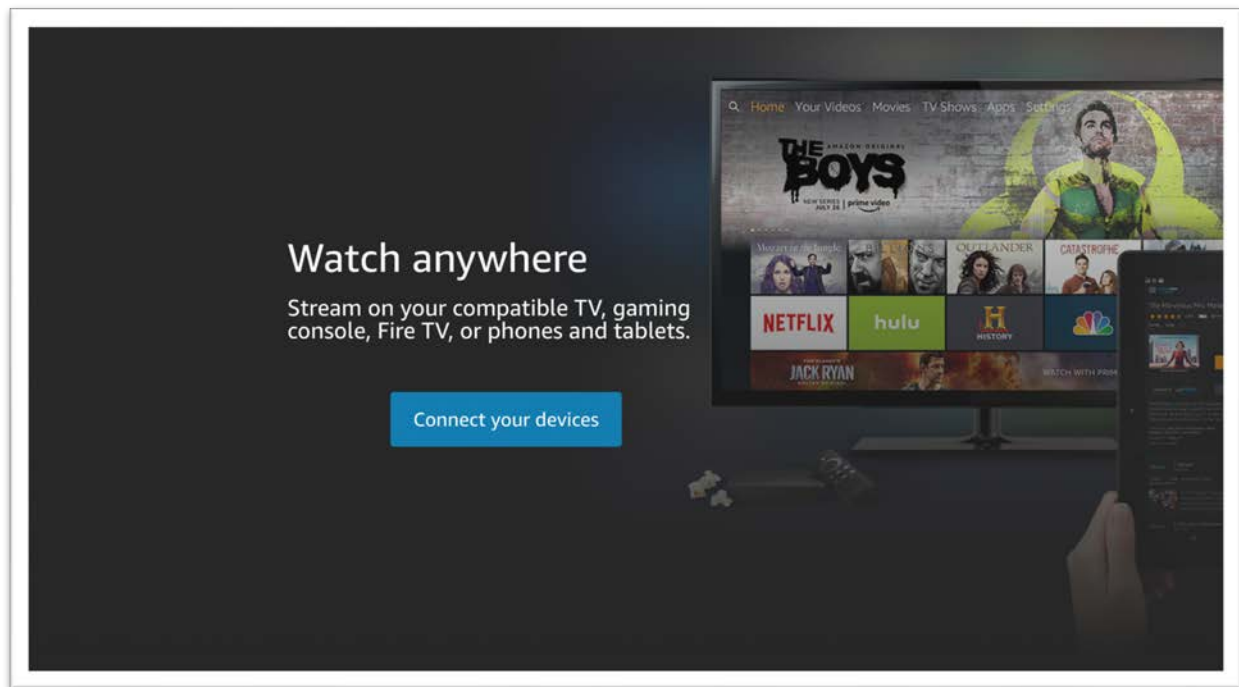
Smart TV, Blu-ray player

1. Open the app store to download, install, and open the Prime Video app.
2. Register your device—here are two ways:
 - (1) Select "Sign in and start watching" and enter your Amazon account information.
 - (2) Choose "Register on the Amazon website" to get a 5–6 character code, then sign in to your Amazon account and enter your code.

[Sign in to your Amazon account and enter your code](#)

See, e.g., https://www.amazon.com/gp/video/splash/device_linking.

151. Moreover, Amazon instructs and encourages end users to download, install, and use unlicensed third-party streaming services in a manner that directly infringes the asserted 553 Patent claims. For example, Amazon provides an application store and associated infrastructure to enable end users to download and install unlicensed streaming applications from third-party streaming service providers and stream video using the Amazon Accused Products. Amazon markets the Accused Products as permitting end users to “[w]atch anywhere” and “[s]tream on your compatible TV, gaming console, Fire TV, or phones and tablets.”



See, e.g., https://www.amazon.com/gp/video/getstarted/ref=sv_atv_5.

152. Amazon encourages and instructs end users of the Amazon Accused Products that “[y]ou’ll never run of things to watch on Fire TV,” because they can “[e]asily download your favorite apps like Netflix, Prime Video, YouTube, Hulu, and Disney+,” and “[a]ccess thousands of hours of free movies and TV episodes from popular ad-supported streaming apps like IMDb TV, Tubi, and Pluto TV.” The following screenshot shows an example of those instructions:

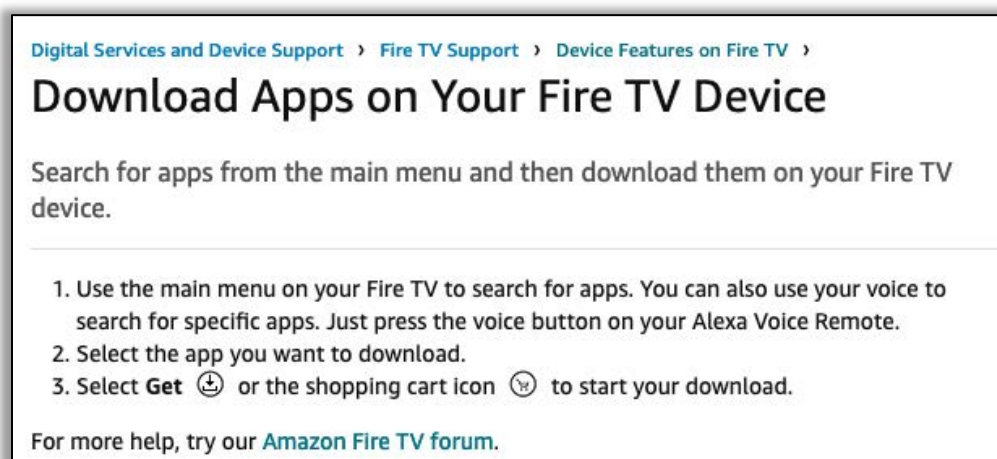
Get the most out of your Fire TV Stick 4K

Something's always on

You'll never run out of things to watch on Fire TV. Easily download your favorite apps like Netflix, Prime Video, YouTube, Hulu, and Disney+. Access thousands of hours of free movies and TV episodes from popular ad-supported streaming apps like IMDb TV, Tubi, and Pluto TV. Watch or browse live TV, sports, news, and channels from Live on the Main Menu. With Profiles, everyone in your household can quickly get recommendations tailored to what they like. To learn more about your Fire TV, visit amazon.com/firetv.

See, e.g., Amazon Fire Stick 4K Quick User Guide, available at https://s3-us-west-2.amazonaws.com/customerdocumentation/Amazon+Fire+TV+User+Guides/Fire+TV+Stick+Device+Documentation/Fire+TV+Stick+4K_Quick+Start+Guide_US.pdf.

153. Amazon encourages and instructs end users of the Amazon Accused Products how to “Download Apps On Your Fire TV Device,” including how to access and search for third-party streaming applications, and download them to the Amazon Accused Products. The following screenshot shows an example of those instructions:



See, e.g., https://www.amazon.com/gp/help/customer/display.html?nodeId=GRDR6KJPL2FT6YHS&ref_=hp_GHH5TUHA7677G4HJ_c_Download-Apps-on-Your-Fire-

TV-.

154. When end users use the Accused hardware products to stream from an unlicensed streaming service, this results in direct infringement of the 553 Patent, as described, for example, at Exhibit 9, a claim chart applying independent claim 11 of the 553 Patent to the Amazon Accused Products operating with the Amazon Prime Video streaming service as an exemplary product.

155. Amazon customers such as end users directly infringe by using the Accused Products in their intended manner to infringe, *e.g.*, by using the Amazon Accused Products to stream video, thereby making and/or using an infringing apparatus. Amazon induces such infringement by providing the Accused Products and instructions to enable and facilitate infringement as described above, knowing of the 553 Patent. Upon information and belief, Amazon specifically intends that its actions will result in infringement of the 553 Patent, or subjectively believes that its actions will result in infringement of the 553 Patent but took deliberate actions to avoid learning of those facts.

156. Amazon proceeded in this manner despite actual knowledge of the 553 Patent and that the specific actions it is actively inducing on the part of its customers and other third parties constitute infringement of the 553 Patent as of the date of service of this Complaint and/or the Complaint filed with the United States International Trade Commission on October 24, 2022. At the very least, because Amazon is on notice of the 553 Patent and the accused infringement, as of the date of filing and/or service of this Complaint and/or the Complaint filed with the United States International Trade Commission with detailed infringement contentions on October 24, 2022, it is willfully blind regarding infringement it has induced and continues to induce.

157. Upon information and belief, Amazon's infringement of this patent continues to be willful, at least since Amazon's knowledge of its infringement as described above.

158. Amazon's acts of infringement have caused and continue to cause damage to Plaintiff and Plaintiff is entitled to recover from Amazon damages sustained as a result of Amazon's infringement of the Asserted Patents, but in no event less than a reasonable royalty.

COUNT V: INFRINGEMENT OF U.S. PATENT NO. 11,050,808

159. DivX incorporates and realleges paragraphs 1 – 63 above as if fully set forth herein.

160. On information and belief, Amazon has infringed and continues to infringe one or more claims of the 808 Patent, including but not limited to claims 1-7 and 12-17, pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by, among other things: making, using, offering for sale, selling, and/or importing into the United States without authority, the Amazon Accused Products.

161. A claim chart applying independent claim 1 of the 808 Patent to a current-generation Amazon Fire Stick operating with the Amazon Prime Video streaming service as an exemplary streaming application, as exemplary of the Amazon Accused Products, can be found at Exhibit 10. Amazon directly infringes the asserted claims by making, using (*e.g.*, when testing its Prime Video service with the Amazon Accused Products), selling, offering to sell, and/or importing the Amazon Accused Products, each of which comprises the claimed playback device. The descriptions in Exhibit 10 are preliminary and based on publicly available information. Plaintiff expects to further develop the evidence of infringement by the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets, after obtaining discovery from Amazon in the course of this Action. The current-generation Amazon Fire Stick is depicted here:



See, e.g., <https://www.amazon.com/fire-tv-stick-with-3rd-gen-alexa-voice-remote/dp/B08C1W5N87>.

162. On information and belief, Amazon has induced and continues to induce infringement of claims of the 808 Patent pursuant to 35 U.S.C. § 271(b), including without limitation at least claims 1-7 and 12-17, by encouraging its customers and other third parties to make and/or use the claimed systems, such as by using the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets. Such making and/or use of the claimed systems constitutes infringement, literally or under the doctrine of equivalents, of one or more claims of the 808 Patent by such third parties. Amazon's acts of encouragement include: providing and intending that third parties use the infringing

Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets, in a manner that infringes, and providing instructions to do so; purposefully and voluntarily placing the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets, in the stream of commerce with the expectation that it will be used by customers in the Eastern District of Virginia; providing components that enable/and or make use of the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets, through its own and third-party media platforms, including websites and television. Furthermore, Amazon has actual knowledge of how the infringing Amazon Prime Video application and video playback devices, including, for example, without limitation: Amazon Fire tablets, Amazon Fire TV/Cube devices, Amazon Echo Show devices, and Amazon Fire TV sets work, including how they are used by customers. Amazon has undertaken these acts of encouragement with the specific intent that end-users use such Accused Products as intended by Amazon in a manner that infringes the asserted claims of the 808 Patent.

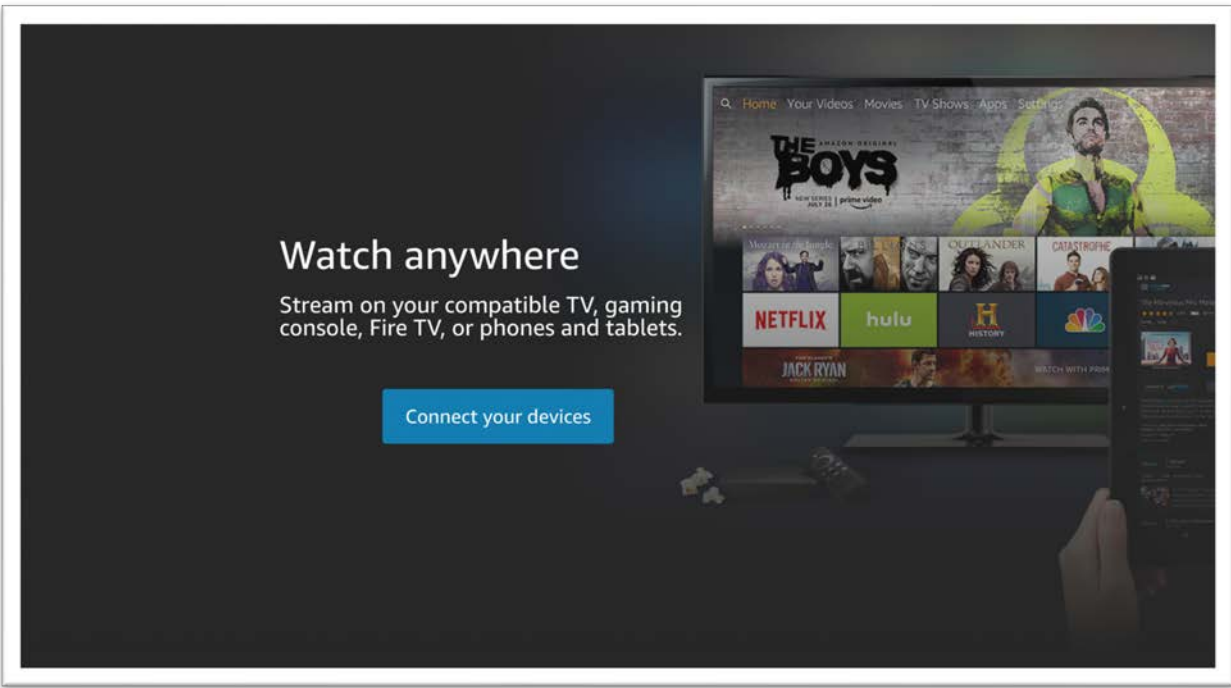
163. On information and belief, Amazon was placed on notice of DivX's portfolio of patents, including the 808 Patent, at least as of November 3, 2020, when Complainant DivX served a subpoena *duces tecum* and subpoena *ad testificandum* on Amazon by overnight FedEx delivery in the ITC Investigation No. 337-TA-1222, *In the Matter of Certain Video Processing Devices, Components Thereof, and Digital Smart Televisions Containing the Same I*. Exhibit 13 (Stipulation Extending Time for Non-Party Amazon.com, Inc. to Respond to Complainant DivX, LLC's

Subpoena) at 1. On information and belief, Amazon has since been studying DivX's patent portfolio and DivX's litigations, including the litigations in the Central District of California where DivX has asserted U.S. Patent No. 10,412,141 against Netflix and Hulu. U.S. Patent No. 10,412,141 issued from U.S. Patent Application 16/136,149, from which U.S. Patent Application 16/565,375, later issued as the 808 Patent, is a continuation. On information and belief, on February 11, 2022, Amazon confirmed its awareness of DivX's portfolio and of DivX's infringement allegations implicating Amazon's technology. Exhibit 12 at 1-2 (Amazon Motion to Intervene). At the very least, Amazon was on notice of the 808 Patent and the accused infringement, as of the date of filing and/or service of this Complaint and/or the Complaint captioned *Certain Video Processing Devices and Components Thereof*, Inv. No 337-TA-____ (pending institution) filed with the United States International Trade Commission with detailed infringement contentions on October 24, 2022.

164. Amazon knowingly and intentionally encourages at least: (1) streaming services providers, such as Warner Bros. Discovery, Inc. and its HBO Max streaming service; and (2) end users of the Amazon accused products, such as consumers in the United States, to directly infringe the 808 Patent.

165. For example, Amazon provides the Accused Products as well as technical and business infrastructure, specifications, software, know-how, and other support to instruct and enable streaming service providers to make, use, sell/lease, and/or offer for sale/lease applications that provide video streaming services for installation on the Amazon Accused Products, or otherwise provide video streaming services to the Amazon Accused Products. Once installed, or otherwise when such services are used, such applications in combination with the Amazon Accused Products directly infringe the 808 Patent.

166. For example, Amazon provides an application store and associated infrastructure to enable unlicensed streaming service providers to provide their Amazon device-specific streaming applications to end users, so that such end users can download, install, and use such streaming applications using the Amazon Accused Products.



See, e.g., https://www.amazon.com/gp/video/getstarted/ref=sv_atv_5.

167. Amazon further encourages third-party streaming service providers to provide such applications for use with the Amazon Accused Products by providing software tools and libraries that facilitate the process of developing streaming applications that work with the Amazon Accused Products. For example, Amazon provides a “port” of the ExoPlayer library (originally from Google) for video streaming. Because Amazon Fire OS is a “fork of Android,” Android’s ExoPlayer lends itself to be highly compatible with Fire OS. <https://developer.amazon.com/docs/fire-tv/fire-os-overview.html>. Indeed, as Amazon claims, “if your app runs on Android, it will most likely run on Amazon’s Fire devices too. You can quickly check your app’s compatibility with Amazon through the App Testing Service. As a developer,

you might not have to adjust your Android code at all to publish your app on Amazon's platform.”

Id.

Fire OS Overview

Fire OS is the operating system that runs Amazon's Fire TV and tablets. Fire OS is a fork of [Android](#), so if your app runs on Android, it will most likely run on Amazon's Fire devices too. You can quickly check your app's compatibility with Amazon through the [App Testing Service](#). As a developer, you might not have to adjust your Android code at all to publish your app on Amazon's platform.

See, e.g., <https://developer.amazon.com/docs/fire-tv/fire-os-overview.html>.

168. Amazon provides specific tools and libraries (e.g., its own version of ExoPlayer) for software developers to adopt and to facilitate the development process. Amazon encourages third-party streaming service providers to, “[i]nstead of integrating the default ExoPlayer into your Fire TV app, use the Amazon port of ExoPlayer. The Amazon port of ExoPlayer provides many fixes, workarounds, and other patches to make ExoPlayer work on Amazon devices.”

<https://developer.amazon.com/docs/fire-tv/media-players.html>.

Amazon Port of ExoPlayer

ExoPlayer is an open-source media player developed by Google and intended for Android media apps. To learn more about ExoPlayer, see the following resources:

- [ExoPlayer homepage](#)
- [ExoPlayer Video from Google](#)
- [ExoPlayer Developer Guide](#)

Amazon has a port of ExoPlayer that is compatible with Fire TV. Instead of integrating the default ExoPlayer into your Fire TV app, use the Amazon port of ExoPlayer. The Amazon port of ExoPlayer provides many fixes, workarounds, and other patches to make ExoPlayer work on Amazon devices.

To understand how to use ExoPlayer, consult the standard ExoPlayer resources as listed previously.

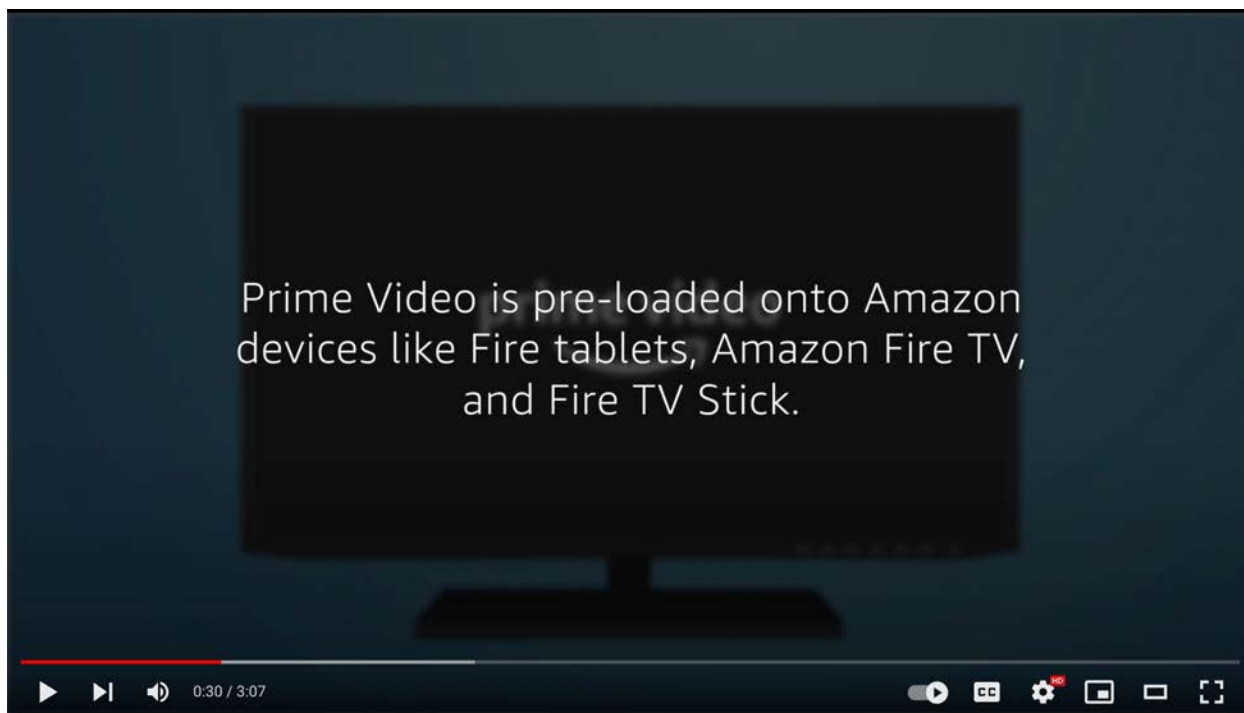
[Download the Amazon Port of Exoplayer](#)

See, e.g., <https://developer.amazon.com/docs/fire-tv/media-players.html>.

169. Providers of unlicensed streaming services thereby directly infringe at least by making and using infringing apparatuses in conjunction with the Amazon Accused Products, such as when testing applications developed for use with the Amazon Accused Products. Such activities directly infringe, as described, for example, at Exhibit 10, a claim chart applying independent claim 1 of the 808 Patent to the Amazon Accused Products operating with the Amazon Prime Video streaming service as an exemplary product.

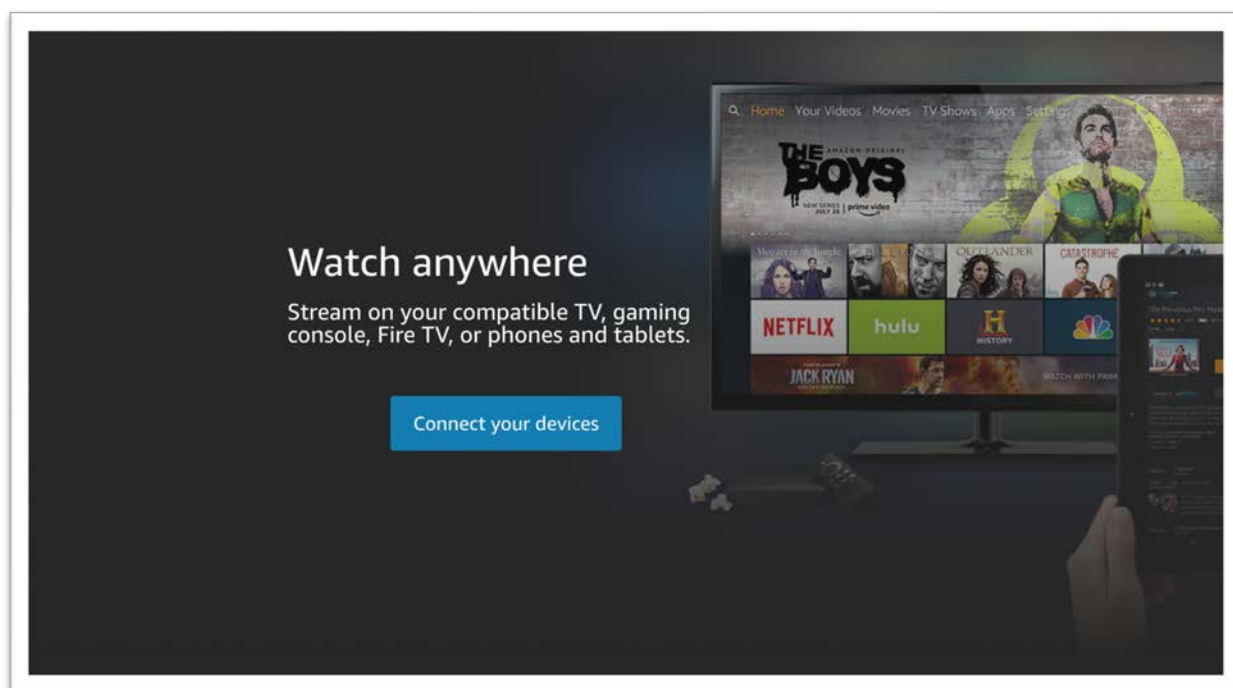
170. Amazon induces such infringement by providing the Accused Products as well as technical and business infrastructure, know-how, and other support to enable and facilitate such infringement, examples of which are discussed above, knowing of the 808 Patent. Upon information and belief, Amazon specifically intends that its actions will result in infringement of the 808 Patent, or subjectively believes that its actions will result in infringement of the 808 Patent but took deliberate actions to avoid learning of those facts.

171. Amazon also provides the Amazon Accused Products and instructions to end users so that such end users will use the Accused Products in an infringing manner. For example, Amazon induces end users to download the Amazon Prime Video application and pre-installs the Amazon Prime Video application on the Amazon Accused Products, with the intent that end users use the application to stream video to the Amazon Accused Products. *See also* <https://www.youtube.com/watch?v=gX0YkCjOxUg> at 0:30. When end users do so, this results in direct infringement of the 808 Patent, as described, for example, at Exhibit 10 a claim chart applying independent claim 11 of the 808 Patent to the Amazon Accused Products operating with the Amazon Prime Video streaming service as an exemplary product. The following screenshot from an instructional YouTube video titled “Prime Video: How to Buy or Rent Prime Video,” created by Amazon, confirms that Prime Video is pre-loaded onto Amazon Accused Products:



See, e.g., <https://www.youtube.com/watch?v=gX0YkCjOxUg> at 0:30.

172. Amazon provides the streaming platform for its Prime Video service, which allows its consumers to “[w]atch anywhere” and “[s]tream on your compatible TV, gaming console, Fire TV, or phones and tablets.”




See, e.g., https://www.amazon.com/gp/video/getstarted/ref=sv_atv_5.

173. As shown below, Amazon provides consumers with instructions on how to access the Prime Video streaming platform and thereby induces consumers to infringe the claims of the 808 Patent.

Are you new to Prime?

[Sign up for Prime Video](#)


Amazon Fire TV Family



If you've never signed in on your Fire TV or Fire TV Stick, follow the steps below to get started. (Already registered? Begin at step 3):

1. Turn on the device.
2. Sign in with your Amazon account, or create an Amazon account to sign in with.
3. Press the home button on your remote.
4. Enjoy.


See, e.g., https://www.amazon.com/gp/video/splash/device_linking.



Fire tablet

1. Sign in to your Amazon account on your Fire tablet.
2. If needed, register your device.
3. Open the Prime Video app, or go to the "Video" tab.
4. Enjoy.

See, e.g., https://www.amazon.com/gp/video/splash/device_linking.



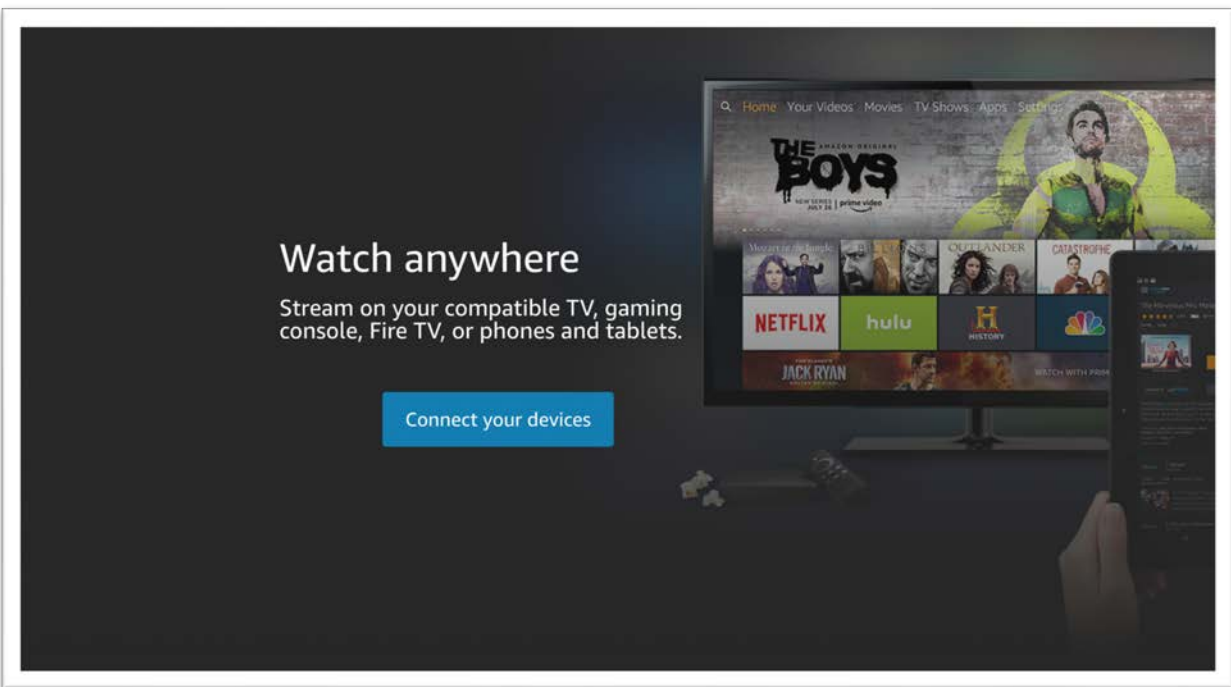
Smart TV, Blu-ray player

1. Open the app store to download, install, and open the Prime Video app.
2. Register your device—here are two ways:
 - (1) Select "Sign in and start watching" and enter your Amazon account information.
 - (2) Choose "Register on the Amazon website" to get a 5–6 character code, then sign in to your Amazon account and enter your code.

[Sign in to your Amazon account and enter your code](#)

See, e.g., https://www.amazon.com/gp/video/splash/device_linking.

174. Moreover, Amazon instructs and encourages end users to download, install, and use unlicensed third-party streaming services in a manner that directly infringes the asserted 808 Patent claims. For example, Amazon provides an application store and associated infrastructure to enable end users to download and install streaming applications from third-party streaming service providers and stream video using the Amazon Accused Products. Amazon markets the Accused Products as permitting end users to “[w]atch anywhere” and “[s]tream on your compatible TV, gaming console, Fire TV, or phones and tablets.”



See, e.g., https://www.amazon.com/gp/video/getstarted/ref=sv_atv_5.

175. Amazon encourages and instructs end users of the Amazon Accused Products that “[y]ou’ll never run of things to watch on Fire TV,” because they can “[e]asily download your favorite apps like Netflix, Prime Video, YouTube, Hulu, and Disney+,” and “[a]ccess thousands of hours of free movies and TV episodes from popular ad-supported streaming apps like IMDb TV, Tubi, and Pluto TV.”

Get the most out of your Fire TV Stick 4K

Something's always on

You'll never run out of things to watch on Fire TV. Easily download your favorite apps like Netflix, Prime Video, YouTube, Hulu, and Disney+. Access thousands of hours of free movies and TV episodes from popular ad-supported streaming apps like IMDb TV, Tubi, and Pluto TV. Watch or browse live TV, sports, news, and channels from Live on the Main Menu. With Profiles, everyone in your household can quickly get recommendations tailored to what they like. To learn more about your Fire TV, visit amazon.com/firetv.



See, e.g., Amazon Fire Stick 4K Quick User Guide, available at https://s3-us-west-2.amazonaws.com/customerdocumentation/Amazon+Fire+TV+User+Guides/Fire+TV+Stick+Device+Documentation/Fire+TV+Stick+4K_Quick+Start+Guide_US.pdf.

176. Amazon encourages and instructs end users of the Amazon Accused Products how to “Download Apps On Your Fire TV Device,” including how to access and search for third-party streaming applications, and download them to the Amazon Accused Products

Digital Services and Device Support › Fire TV Support › Device Features on Fire TV ›

Download Apps on Your Fire TV Device

Search for apps from the main menu and then download them on your Fire TV device.

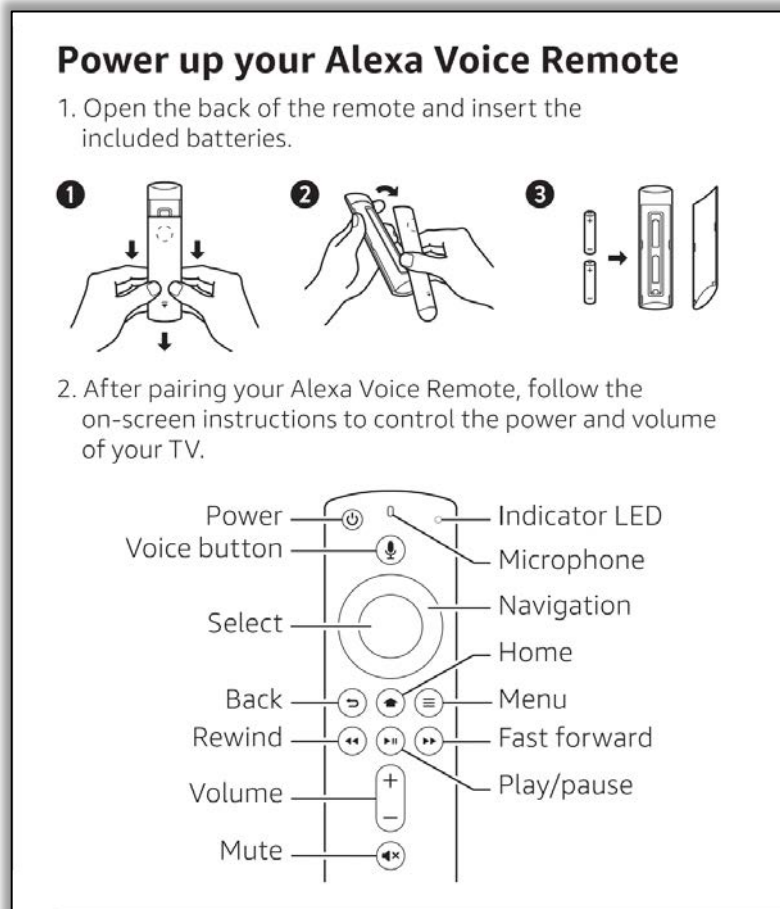
1. Use the main menu on your Fire TV to search for apps. You can also use your voice to search for specific apps. Just press the voice button on your Alexa Voice Remote.
2. Select the app you want to download.
3. Select **Get**  or the shopping cart icon  to start your download.

For more help, try our [Amazon Fire TV forum](#).

See, e.g., [https://www.amazon.com/gp/help/customer/display.html?nodeId=](https://www.amazon.com/gp/help/customer/display.html?nodeId=GRDR6KJPL2FT6YHS&ref_=hp_GHH5TUHA7677G4HJ_c_Download-Apps-on-Your-Fire-TV-)

[GRDR6KJPL2FT6YHS&ref_=hp_GHH5TUHA7677G4HJ_c_Download-Apps-on-Your-Fire-TV-](https://www.amazon.com/gp/help/customer/display.html?nodeId=GRDR6KJPL2FT6YHS&ref_=hp_GHH5TUHA7677G4HJ_c_Download-Apps-on-Your-Fire-TV-).

177. Amazon encourages and instructs end users of certain Amazon Accused Products, for example, Amazon Fire TV devices and sets that include or have the capability to pair with a Fire TV remote control, such as the Fire TV Alexa Voice Remote, to use remote control buttons to transmit user instructions to perform various playback or trickplay functionalities (*e.g.*, pressing the fast forward button to fast forward). *See*, https://customerdocumentation.s3-us-west-2.amazonaws.com/Amazon+Fire+TV+User+Guides/Fire+TV+Stick+Device+Documentation/22-002253-01_FireTVStick_3rd+Gen_Quick+Start+Guide_US.pdf.



See, e.g., Fire TV Stick_3rd Gen Quick Start Guide, available at https://customerdocumentation.s3-us-west-2.amazonaws.com/Amazon+Fire+TV+User+Guides/Fire+TV+Stick+Device+Documentation/22-002253-01_FireTVStick_3rd+Gen_Quick+Start+Guide_US.pdf.

178. When end users use the Accused hardware products to stream from an unlicensed streaming service, this results in direct infringement of the 808 Patent, as described, for example, at Exhibit 10 a claim chart applying independent claim 1 of the 808 Patent to the Amazon Accused Products operating with the Amazon Prime Video streaming service as an exemplary product.

179. Amazon customers such as end users directly infringe by using the Accused Products in their intended manner to infringe, *e.g.*, by using the Amazon Accused Products to stream video, thereby making and/or using an infringing apparatus. Amazon induces such infringement by providing the Accused Products and instructions to enable and facilitate infringement as described above, knowing of the 808 Patent. Upon information and belief, Amazon specifically intends that its actions will result in infringement of the 808 Patent, or subjectively believes that its actions will result in infringement of the 808 Patent but took deliberate actions to avoid learning of those facts.

180. Amazon proceeded in this manner despite actual knowledge of the 808 Patent and that the specific actions it is actively inducing on the part of its customers and other third parties constitute infringement of the 808 Patent as of the date of service of this Complaint and/or the Complaint filed with the United States International Trade Commission on October 24, 2022. At the very least, because Amazon is on notice of the 808 Patent and the accused infringement, as of the date of filing and/or service of this Complaint and/or the Complaint filed with the United States International Trade Commission with detailed infringement contentions on October 24, 2022, it is willfully blind regarding infringement it has induced and continues to induce.

181. Upon information and belief, Amazon's infringement of this patent continues to be willful, at least since Amazon's knowledge of its infringement as described above.

182. Amazon's acts of infringement have caused and continue to cause damage to Plaintiff and Plaintiff is entitled to recover from Amazon damages sustained as a result of Amazon's infringement of the Asserted Patents, but in no event less than a reasonable royalty.

PRAYER FOR RELIEF

WHEREFORE, DivX respectfully prays for relief from this Court as follows:

A. A judgment that Amazon has infringed and continues to infringe one or more claims of the Asserted Patents;

B. A judgment that Amazon has induced infringement and continues to induce infringement of one or more claims of the Asserted Patents;

C. A permanent injunction against Amazon and its officers, employees, agents, attorneys, instrumentalities, and/or those in privity with them, from infringing one or more claims of the Asserted Patents or inducing the infringement of one or more claims of the Asserted Patents, and for all further and proper injunctive relief pursuant to 35 U.S.C. § 283.

D. A judgment awarding DivX all damages adequate to compensate DivX for Amazon's infringement, and in no event less than a reasonable royalty for Amazon's acts of infringement, including all pre-judgment and post-judgment interest at the maximum rate allowed by law;

E. A judgment that Amazon has willfully infringed one or more claims of the Asserted Patents;

F. A judgment awarding treble patent damages, pursuant to 35 U.S.C. § 284, as a result of Amazon's willful infringement of one or more claims of the Asserted Patents;

G. A finding that the case is an exceptional case, pursuant to 35 U.S.C. § 285, and that Amazon be required to pay DivX's attorneys' fees and costs;

H. A judgment awarding DivX such other relief as the Court may deem just and equitable.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, DivX hereby demands a jury trial on all issues so triable in this Action.

Date: October 24, 2022

Respectfully submitted,

/s/ Natasha M. Saputo

Matthew D. Powers (CA Bar No. 104795)
(*pro hac vice* to be filed)
Paul T. Ehrlich (CA Bar No. 228543)
(*pro hac vice* to be filed)
William P. Nelson (CA Bar No. 196091)
(*pro hac vice* to be filed)
Natasha M. Saputo (VA Bar No. 80893)
Daniel M. Radke (CA Bar No. 307718)
(*pro hac vice* to be filed)
Jerome Ma (CA Bar No. 335129)
(*pro hac vice* to be filed)
TENSEGRITY LAW GROUP LLP
555 Twin Dolphin Drive
Suite 650
Redwood Shores, CA 94065
Tel: (650) 802-6000
Fax: (650) 802-6001
matthew.powers@tensegritylawgroup.com
paul.ehrlich@tensegritylawgroup.com
william.nelson@tensegritylawgroup.com
natasha.saputo@tensegritylawgroup.com
daniel.radke@tensegritylawgroup.com
jerome.ma@tensegritylawgroup.com

Azra M. Hadzimehmedovic (VA Bar No. 94519)
(*pro hac vice* to be filed)
Ronald J. Pabis (D.C. Bar No. 473023)
(*pro hac vice* to be filed)
Stephen K. Shahida (D.C. Bar No. 454970)
(*pro hac vice* to be filed)

TENSEGRITY LAW GROUP LLP
8260 Greensboro Dr.
Suite 260
McLean, VA 22102-3848
Tel: (650) 802-6000
Fax: (650) 802-6001
azra@tensegritylawgroup.com
stephen.shahida@tensegritylawgroup.com
ron.pabis@tensegritylawgroup.com

Attorneys for Plaintiff DivX, LLC